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THE PENTOMIC ERA

THE U.S. ARMY BETWEEN KOREA AND VIETNAM

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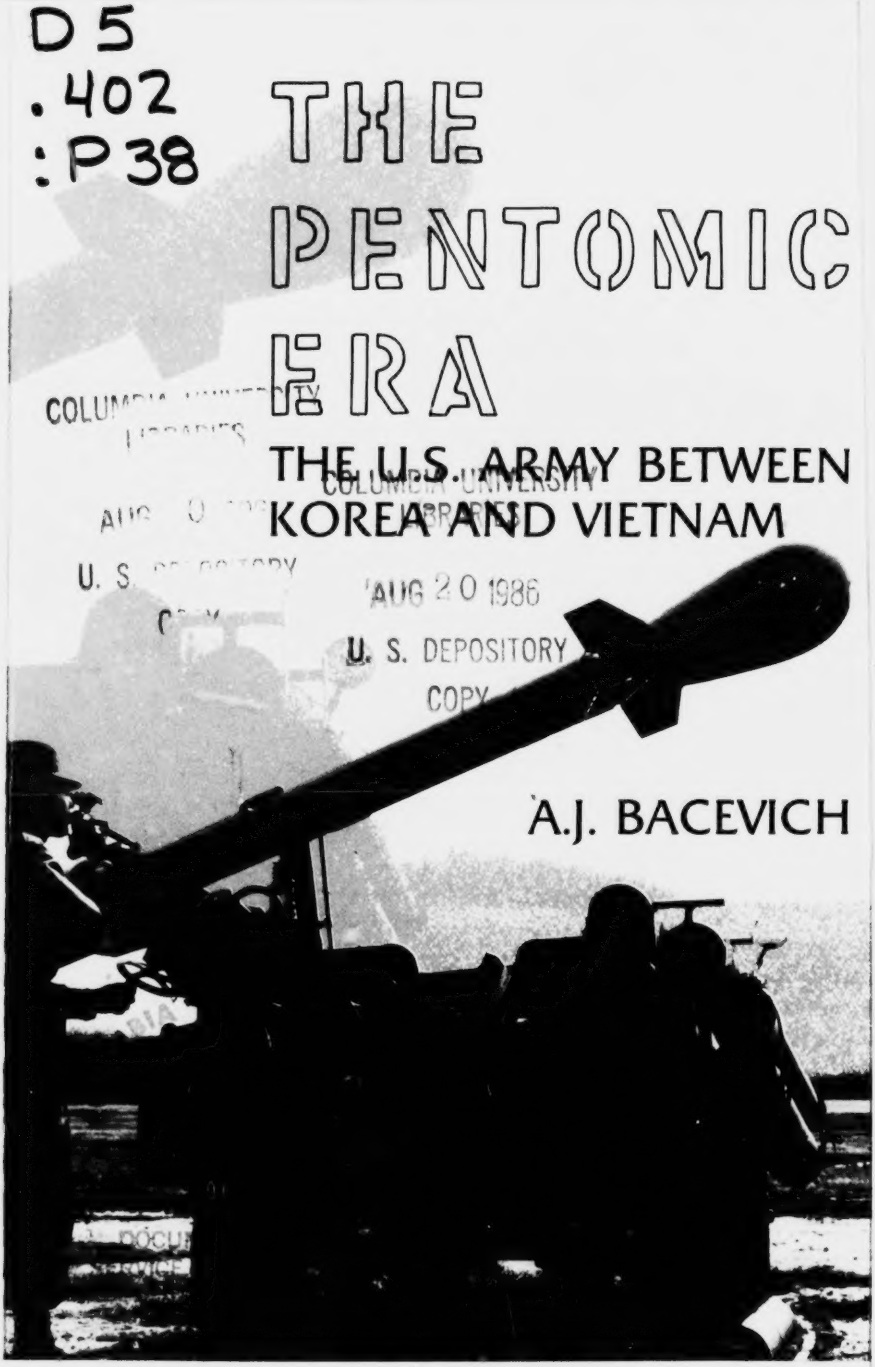

The *Davy Crockett* weapon system (Heavy), XM-29, depicted on the cover, employed a 150-pound rocket-propelled nuclear warhead designed to provide a battlefield nuclear capability for the Army tactical combat battalion commander. Fielded in 1961, when the Army's nuclear enthusiasm was still high, *Davy Crockett* looked like a large recoilless rifle and could loft a miniature atomic warhead to a range of 1.25 miles. It is thought by some observers to be typical, even symbolic, of the Army's Pentomic Era.

Cover artwork by Laszlo L. Bodrogi, based on a US Army photo

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THE PENTOMIC ERA

The US Army Between Korea and Vietnam

A. J. Bacevich

1986

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to

Casey Brower	Bruce Korda
Rob Goff	Monty Meigs
Bob Ivany	Scott Wheeler

comrades in arms, irreplaceable friends

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Foreword

Although atomic weapons helped win World War Two in the Pacific, they raised the question of whether these weapons altered the nature of warfare, or simply warfare's destructive dimensions. Responsibility for nuclear weapons development became a central issue in US service politics, particularly between the Army and Air Force during the early years of the Eisenhower administration.

In his history of the Army in the years between the Korean and Vietnam wars, Lieutenant Colonel A. J. Bacevich, US Army, accents the Army's mindfulness of the implications of nuclear warfare. The Army's concern, reflecting a complex mixing of institutional, strategic, and operational considerations, led to major changes in Army organization, doctrine, and weapons. The author argues that during these years, the Army not only survived an institutional identity crisis—grappling to comprehend and define its national security role in a nuclear age—but grew to meet new challenges by pioneering the development of rockets and missiles.

Colonel Bacevich's analysis of the Army's post-Korea, pre-Vietnam era contributes valuable insights to the study of recent US military history. Especially important is Colonel Bacevich's caution that military professionals temper their enthusiasm for technological progress with an eye to those elements of warfare that remain changeless.

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Introduction

The essay that follows is a brief history of the US Army during the years immediately following the Korean War. For many in our own time that period—corresponding to the two terms of the Eisenhower presidency—has acquired an aura of congenial simplicity. Americans who survived Vietnam, Watergate, and painful economic difficulties wistfully recall the 1950s as a time when the nation possessed a clearly-charted course and had the will and the power to follow it.

However comforting such views may be, the reality was far different. Many segments of America experienced the 1950s as anything but a Golden Age. Prominent among this group was the Army. Instead of the "good old days," the Army found the Eisenhower era to be one of continuing crisis. New technology, changing views of the nature of war, and the fiscal principles of the Eisenhower administration produced widespread doubts about the utility of traditional land forces. As Army officers saw it, these factors threatened the well-being of their Service and by implication endangered the security of the United States.

This essay explores the nature of those threats and of the Army's response to them. By design, this essay is selective and interpretive. It does not provide a complete narrative of events affecting the Army after Korea. It excludes important developments such as foreign military assistance, the growth of Army aviation, and the impact of alliance considerations on American military policy. As a result, the history that follows is neither comprehensive nor definitive. What value it may possess derives instead from its explication of themes that retain some resonance for an Army in later decades confronted with its own challenges.

A great institution like the Army always is in transition. And though the character of reform is seldom as profound as the claims of senior leaders or the *Army Times* may suggest, in the 1950s change often matched the hyperbole of its advocates. The Army found itself grappling for the first time with the perplexing implications of nuclear warfare; seeking ways of adapting its organization and doctrine to accommodate rapid technological advance; and attempting to square apparently revolutionary change with traditional habits and practical constraints of the military art. In retrospect, we may find fault with the Army's response to these challenges. If so, we have all the more reason to concern ourselves with how the Service derived the answers that it did. To a striking extent, challenges similar to those of the 1950s have returned to preoccupy the Army today.

When the Army reorganized to fight on the atomic battlefield, it used units of "five" throughout—five platoons per company, five companies per battle group, up to the newly christened "Pentomic" division. The term Pentomic became associated with the post-Korea era, and thus seemed a fitting title for my study. While this essay makes some use of archival sources, most notably in depicting the Army's perspective on sensitive questions of nuclear strategy, I have relied on such records only to a limited extent. In large part I have used contemporary statements by senior military officials and articles appearing in military journals. The emphasis on Service journals does not reflect a belief that the written musings of relatively junior officers influence American military policy to any significant degree. They do not. While the institutional organs of other professions presage and often inspire new developments, American military journals tend instead to reflect ideas that already enjoy official sanction. They mirror American military thought rather than determine its direction. Although the placid character of American military journals minimizes their utility as a forum for debating new ideas, this character makes them ideal for the historian attempting to understand the mind-set of the officer corps at a particular time.

In preparing this study, I benefited greatly from the generosity of the US Army Center of Military History, where I worked as a Research Associate during the summer of 1984. The staffs of the National Archives and the US Army Military History Institute provided important assistance. In the latter case, Mr. Richard Sommers was especially cordial in helping me explore the Ridgway Papers and pertinent parts of the Institute's oral history collection. At the National Defense University, Ms. Joanne Scott made my search through the papers of Lyman L. Lemnitzer and Maxwell D. Taylor efficient and productive. I thank General Lemnitzer and General Taylor for their permission to consult their personal papers. At the Eisenhower Library, Mr. Rod Soubers provided sound advice and responsive assistance that helped me make the most of the short time I spent in Abilene. My friends James L. Abrahamson, Casey Brower, John Mason, and Scott Wheeler each responded to my calls for help by providing a critical reading of the manuscript at an early stage. Though they cannot be held responsible for the result, each in his own way made a valuable contribution to clarifying my thinking on this subject. I am especially grateful to the Council on Foreign Relations in New York. Without the time and financial assistance I received as an International Affairs Fellow with the Council, this study would never have been completed. As always, of course, my greatest debt is to my wife Nancy and our children for their patience, support, and love.

1. The Legacy of Korea

For Americans who died fighting in Korea, there is still no memorial. Although lamentable, the oversight also is appropriate. Monuments signify acceptance of an event and some understanding of its meaning. But more than 30 years after the armistice at Panmunjom, the Korean War has yet to find its place in American history. In the popular mind, the war's significance remains obscure, the war itself largely forgotten.

The war's bewildering character and the bizarre course that it followed account in some degree for the haste with which Americans shoved aside its memory. Korea confronted Americans with intense combat meretriciously classified not as war but as a "police action." It was a major conflict fought outside the announced perimeter of vital US interests; a war in which field commanders were denied the use of weapons that some believed could have determined its outcome; a bloody three-year contest pursued without the benefit of a consistent statement of purpose capable of rallying bipartisan support in Washington or of satisfying the soldiers who did the fighting. The war's conclusion only reinforced American uneasiness. Less than a decade before, the United States had triumphantly vanquished the forces of evil. In Korea we again confronted evil, said to be no less odious than the Nazis. But this time we struck a bargain with the devil. Such a distasteful and embarrassing compromise seemed un-American.

Yet despite its perplexing character, Korea demands our attention as a pivotal event in American military history. Though shoved into the recesses of popular memory, the Korean War profoundly affected the political climate of the 1950s. It contributed to major changes in basic American national security policy and military strategy. Of particular interest, the "lessons" of Korea redefined the roles assigned to the armed services, with a major impact on the influence and resources that each could claim. As a result, the war had a lasting though not always beneficial impact on the structure of American defense forces.

This essay examines the Army's attempts to confront the legacy of Korea during the years 1953-61. This period corresponds to the two terms of the Eisenhower Presidency. It also was a time that marked what many contemporary observers believed to be a "revolution" in warfare. For the Army it was a time of isolation and prolonged adversity: of shrinking manpower ceilings, reduced budgets, and widespread doubts about its utility in future wars. General Maxwell D. Taylor called it the Army's "Babylonian Captivity."[1]

Paradoxically, the period also was one of opportunity. Adversity provided an antidote to complacency. It forced the Army to grapple with questions about the nature of American security interests, the character of the next war, and the doctrine, weapons, and organization needed to face its challenges. As we will see, many of the Army's answers to these questions appear flawed in retrospect. Still, they deserve attention today. From the historian's perspective they provide insight into the enduring character of the Army. And of greater immediate interest the debates, decisions, and policies of the 1950s imparted a shape to the Army that persisted long after that decade had passed into history. For better or worse we still feel its effects today.

The Korean War's immediate effects on National politics are well known. First of all, the war completed the destruction of the Truman Presidency. Notwithstanding his recent rehabilitation, Harry S. Truman was the least popular man to occupy the White House since Andrew Johnson. Accusations of corruption among his political cronies and of being "soft" on communism already had cast a shadow over his administration, making a successful bid for reelection in 1952 unlikely. Korea sealed Truman's fate. Held accountable for provoking Red Chinese intervention in the war, criticized for relieving General Douglas MacArthur from command in the Far East, blamed for the bloody stalemate that existed on the battlefield while negotiations dragged on at Panmunjom, Truman lost his last shreds of credibility.

In addition to discrediting Truman personally, the war also caused profound changes in popular views regarding US foreign and defense policies. Paying a bitter price for implementing the Truman Doctrine in no way diminished the hothouse anti-communism that so marked American opinion at that time. If anything, this confrontation with North Korea and the People's Republic of China—both widely viewed by Americans as pawns of the Soviet Union—only reinforced anxiety about the Red Menace. But Truman's inability to bring the war to a satisfactory conclusion—the continuing sacrifice of American soldiers for no clear purpose—convinced many people that relying on conventional military means to stop communist expansion was folly. The vicious character of the fighting—with outnumbered American infantrymen battling "Asian hordes" at close quarters—seemed to play to their advantages. Many Americans considered it absurd that this situation stemmed from our refusal to use precisely those weapons that advanced technology had provided us. Americans wanted policies that would check communism more effectively than had Truman (who in addition to his troubles over Korea also was blamed for "losing" China). But they wanted to achieve that end by capitalizing on American strengths, particularly technology, rather than by squandering American manpower. Above all, they wanted no more Koreas.

The presidential campaign of 1952 occurred while the Korean armistice talks foundered and stalemate on the fighting front continued. The White House would belong to the aspirant able to persuade the American people that he could both end the war and carry on the fight against communism while avoiding future debacles like Korea. Thus the war paved the way for the election of the candidate able to persuade the electorate of his superiority in handling military and diplomatic affairs. With the contest cast in those terms no one could match the credentials of the great hero of World War II, Dwight D. Eisenhower. Once Ike had declared his interest, his triumph in the general elections was all but inevitable.

President Eisenhower assumed office in January 1953 pledging to bring the fighting in Korea to a swift conclusion and to avoid similar wars in the future. To deter attacks of the type that North Korea had launched in June 1950—or failing that, to defeat them—his administration devised the strategy of "massive retaliation." At the heart of this strategy was greatly increased reliance on nuclear weapons—on what Secretary of State John Foster Dulles publicly termed "a great capacity to retaliate instantly by means and at places of our choosing."[2]

Yet that strategy's ominous shorthand name hardly suggests the full dimensions of Eisenhower's national security policy. This policy had more to it than a professed willingness to bomb aggressors into the Stone Age. A document known as *NSC 162/2*, drafted in the early months of his administration, spelled out the full implications of Eisenhower's strategy. Entitled "Basic National Security Policy," this document was approved by the National Security Council (NSC) on 29 October 1953 and long remained a key directive.

As a major theme that would have important implications for the Army, *NSC 162/2* posited an essential link between security and a healthy economy. Economic recession in the United States, it said, would "seriously prejudice the security of the free world." Conversely, "a sound, strong, and growing US economy" would enable the nation "to support over the long pull a satisfactory posture of defense."[3] According to standard Republican thinking of the day, the Federal Government best could encourage growth and maintain a strong dollar by putting a clamp on its own spending. Since defense outlays formed the largest part of the Federal budget, Republicans saw an inverse relationship between defense spending and economic well-being. Spending too much on defense was self-defeating. By threatening to bankrupt the economy, it would pose a positive threat to American security. In other words, *NSC 162/2* implied that frugality in defense spending was needed to sustain the economy, thereby benefiting the country's overall strength and security.

Not surprisingly, then, the administration sought a military capability that would counter the existing Soviet threat as cheaply as possible. As Eisenhower saw it, nuclear weapons far outperformed the old conventional forms of military power in effectiveness and cost. This view explains the prominence of nuclear weapons in *NSC 162/2*. Henceforth, that document stated, American military policy would rest on a "capability of inflicting massive retaliatory damage by offensive striking power." Lest any confusion exist about the type of weapons available for retaliation, *NSC 162/2* specified that the United States would "consider nuclear weapons to be as available for use as other munitions" in the event of war.

The administration believed that this stated willingness to employ nuclear weapons would preclude the requirement for their actual use. The mere threat of dropping a few atomic bombs, combined with the knowledge of their destructive potential, would intimidate would-be aggressors and maintain world order. In this sense massive retaliation represented a complete break from earlier strategic concepts. The United States henceforth would maintain military forces not to fight wars but to prevent them, using the threat of nuclear response to guarantee peace and prevent the further spread of communism and Soviet influence. Rather than a serious attempt to describe how to **employ** force, massive retaliation was, in Russell F. Weigley's phrase, "a strategy of deterrence."[4]

Yet despite the emphasis placed on deterrence, the authors of *NSC 162/2* recognized the relationship between a growing Soviet nuclear arsenal and the credibility of the American retaliatory force. They already foresaw a "state of nuclear plenty" when each side would possess the power to inflict unacceptable damage on the other. Such circumstances would "create a stalemate, with both sides reluctant to initiate general war."

Mutual deterrence of this type would not of itself be inconsistent with American interests if it implied an absence of conflict and a guarantee of the international status quo. Undermining the premise of massive retaliation, however, was the realization that growing Soviet nuclear strength could potentially "diminish the deterrent effect of US atomic power against peripheral Soviet aggression." Once Soviet nuclear forces threatened the United States, American promises to use nuclear weapons against "minor" instances of communist aggression would become less convincing. Once they recognized this opportunity the Russians surely would exploit it. Therefore, the authors of *NSC 162/2* believed that the United States could look forward to a Soviet-directed campaign of subversion against noncommunist countries that would "continue indefinitely" and "grow in intensity."

To address this problem, *NSC 162/2* developed a third, strongly pro-active theme that was consistent with the aim of minimizing defense costs, yet went far beyond the concept of nuclear deterrence. This theme outlined instruments that the United States would employ to defeat aggression in situations where nuclear weapons were inappropriate. According to *NSC 162/2*, the United States would use "all feasible diplomatic, political, economic, and covert measures" to assist any country that appeared to be threatened by a communist takeover. More generally, the United States would "take overt and covert measures to discredit Soviet prestige and ideology." Indeed, *NSC 162/2* declared that US policy would be to "take feasible political, economic, propaganda, and covert measures designed to create and exploit troublesome problems for the U.S.S.R. . . ."

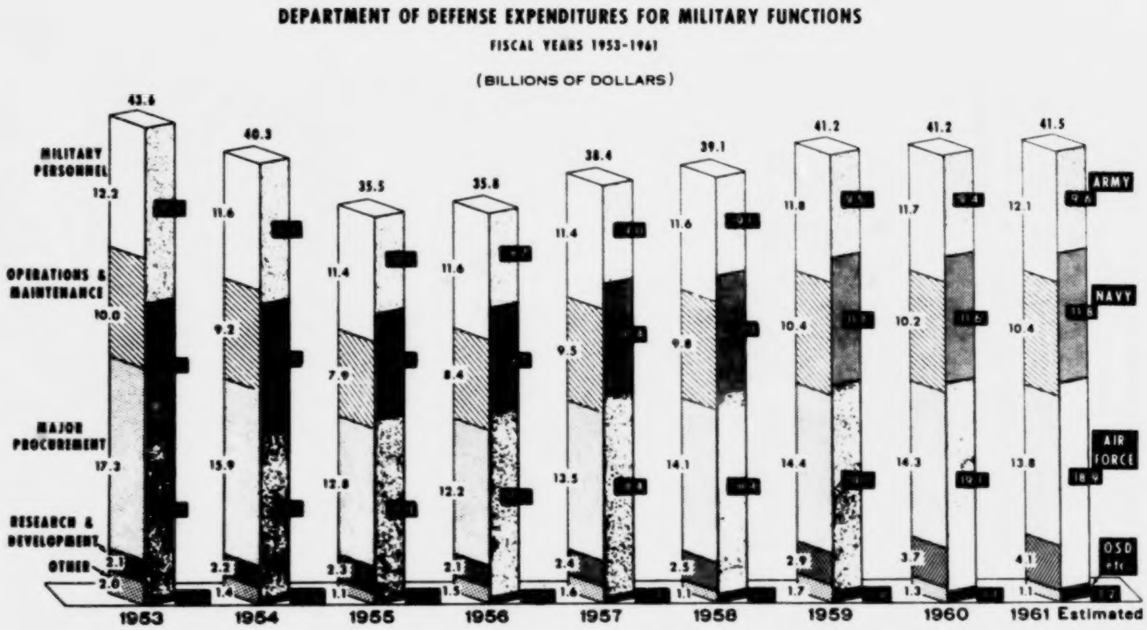
The importance attributed to **covert** action was unmistakable. Its role at one end of the force spectrum was as clear as the role of strategic nuclear weapons at the opposite extreme. But what role remained for traditional conventional forces such as the Army?

The Defense Policy that Eisenhower prescribed to implement massive retaliation answered this question, though hardly in a way that pleased the Army. The "New Look," as it was called, reflected above all the commonly held belief that nuclear weapons had revolutionized warfare. Traditional concepts governing the use of force were outmoded. The "New Look" redefined the role of each Service, aligning it with the requirements of an atomic age. This reallocation of roles significantly changed the relative importance and influence of each Service.

Eisenhower and his advisers believed that air power was the key to deterrence. Thus, the Air Force, less than a decade after achieving independent status, was exalted to primacy among the Service. The intercontinental bomber fleet of the Strategic Air Command (SAC) stood preeminent as the instrument for delivering nuclear retaliatory blows. As a result, throughout the Eisenhower years, the Air Force had first claim on resources.

The significance of this claim showed most clearly in the defense budget. (See figure 1.) In fiscal year (FY) 1953, the last year of the Truman administration, Air Force spending had lagged slightly behind Army's. Yet within two years the Air Force share of the budget had grown to nearly twice the Army's and remained so throughout the decade. Indeed, Air Force expenditures nearly equalled those of the Army and Navy combined. In FY 1957, for example, the Air Force spent $18.4 billion, $1 billion less than the total outlays of the other two Services.[5]

As the Air Force's importance grew under the "New Look," that of the Army declined. In Ike's view of defense in the atomic age the role of his old Service did not loom large. Some thought was given to the Army having to occupy an enemy's homeland once it had been devastated by a hail of nuclear bombs. And perhaps the Army would need to help maintain order at home in the unfortunate event of enemy bombers striking the United States.[6] But the notion of the Army performing major combat missions along the lines of World War II or Korea was the very antithesis of Eisenhower's thinking. Given its peripheral role, the Army became a lucrative target for budget-cutters looking for ways to reduce overall defense expenditures. In these efforts they enjoyed support at the highest levels. Eisenhower himself told the American people in May 1953 that "in making all the economies that are possible, it is



DEPARTMENT OF DEFENSE EXPENDITURES FOR MILITARY FUNCTIONS

FISCAL YEARS 1953-1961

(BILLIONS OF DOLLARS)

[Source: Annual Report of the Secretary of Defense, July 1, 1959, to June 30, 1960]

Figure 1. Comparative Service budgets in the Eisenhower era

necessary that we concentrate on that which is vitally necessary and tend to put into second place, even to eliminate where we can, those things which are merely desirable."[7] Throughout the Eisenhower years the Army remained very much mired in second place. More than a few officers would at times wonder nervously if the President had quietly decided that the Army was "merely desirable."

2. The "New Look": Impact and Counterattack

The immediate effect of the "New Look," then, was to reduce the resources available to the Army for fighting a land war. The Army ended the Korean War with a total force of 1.5 million soldiers and 20 combat divisions. Some reductions in the aftermath of the war were inevitable. In practice, however, the end of the war began a series of progressive cuts that continued throughout the decade. By FY 1955 Army strength stood at 1.1 million. At the end of FY 1958 it reached 899,000. And in FY 1961, the last year of the Eisenhower administration, Army strength bottomed out at 859,000. The force structure suffered similar reductions throughout the decade so that by 1961 the Army had only 14 divisions. Of that number, three were training divisions, in no sense deployable, combat-ready units.[1] By FY 1955 the Army's budget was barely half of what it had been two years earlier. Its share of the defense dollar had shrunk to the smallest among the three Services and remained so throughout Eisenhower's two terms in office.[2]

The Army's impoverishment at the hands of the "New Look" extended beyond material aspects. Signs of demoralization appeared in the ranks. Reenlistment rates plummeted. Few soldiers showed any desire to stay in the Army. Those who did too often were of inferior quality.[3] Junior officers resigned their commissions in unprecedented numbers.[4] Even senior officers were not immune. In disgust, one general officer informed the Army Chief of Staff, General Matthew B. Ridgway, that he was retiring because "I am convinced that if present trends continue the Army will soon become a service support agency for the other armed services."[5]

Soldiers lamented a perceived loss of status and esteem in the eyes of their countrymen. To civilians, the Air Force represented modern technology, SAC, and *Steve Canyon*. The Army's image was hapless *Beetle Bailey* and television's *Sergeant Bilko*, who was described by an officer as "a four-flusher, a sharpie, a cad who exploits an oafish colonel and an element of tramps, no-goods, and semi-criminals doing nothing all day."[6] To this thin-skinned officer, Bilko and his cronies represented the popular view of himself and his fellow soldiers. Public scorn made it painful to be a soldier and seemed to contribute to the Army's talent drain.

Another officer noted that the Army had become "an auxiliary service," apparently retained "for ceremonial purposes while the Air Force girds its loins to fight our wars." He went on to suggest that "if the Army is no longer needed, it should bow out gracefully, and not hang on for the sake of tradition . . ." He recommended sarcastically that the Army be absorbed into the Air Force: such a move would save money, reduce inter-Service rivalry, and help the average soldier's morale by putting him in a snazzy blue uniform.[7]

Such confusion about the Army's future—even doubt that it retained a role in modern warfare—was widespread. Many people outside the Army believed that "the Army is obsolescent and probably obsolete."[8] Increasingly, people inside the Service had begun to share that view. As Major John H. Cushman, an outstanding soldier who would rise to three-star rank, wrote in 1954, "I do not know what the Army's mission is or how it plans to fulfill its mission. And this, I find, is true of my fellow soldiers. At a time when new weapons and new machines herald a revolution in warfare, we soldiers do not know where the Army is going and how it is going to get there."[9]

Reduced budgets and manpower strengths, widespread questions about the Army's future, demoralization within the ranks: little wonder that even such a senior officer as General Lyman L. Lemnitzer could lament in 1955 that "today it seems to me that the very survival of the Army . . . is at stake."[10]

However plaintive, remarks such as Lemnitzer's signified concern, not despair. With the well-being of their Service in jeopardy, Army leaders did not give up. Indeed, many believed that the stakes involved more than the health and prestige of the Army. They agreed with General Ridgway, Army Chief of Staff from 1953 to 1955, that the "New Look" also was a misguided policy that endangered the nation's security. Far from bowing to the "New look," Ridgway and his successors challenged the very rationale of Eisenhower's defense policies, while reshaping the Army in the image of their own vision of the "revolution" in warfare. Ultimately, they sought to overturn massive retaliation. They hoped to substitute policies that would restore the Army to prominence and recognize that strategic weapons alone could not guarantee national security.

The Army counterattacked on several fronts, but not all could claim equal importance. At one level, for example, the Army greatly expanded its public relations effort, hoping to shed its *Beetle Bailey* image for something more upbeat. "It is not enough to do a good job," Army Secretary Wilbur M. Brucker told students at the Command and General Staff College in 1956. "The American people must know their Army is doing it. The time has come when no Army officer can sit in the bleachers and act as a mere spectator. Public relations is not a job of the few but of the many."[11]

In addition to emptying the bleachers figuratively, the Army's public relations offensive took on more substantive form. Soldiers turned in the uniforms of olive drab (OD shade 33) that the Army had worn for 50 years. The cut and color of the new "Army Green" uniform would present a smarter and

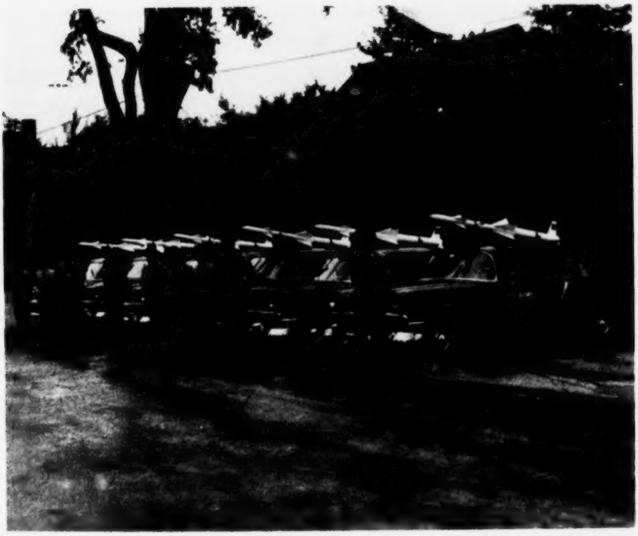
US Army Photo

The Army spruced up its image by replacing the olive drab (OD) uniform (right), which soldiers had worn for 50 years, with a new uniform of "Army Green" (center).

more up-to-date appearance—or so it was hoped. Freshly outfitted, the soldier henceforth would "appear beside the other Services without apology for his appearance," an Army spokesman predicted. The soldier could even "proudly meet and mingle with his civilian contemporaries."[12] Along with new uniforms, the Army touted new equipment. The Army's contributions to aviation, missile research, and the still-infant space program became major public relations themes.

The Army's PR efforts capitalized on the latest media techniques. In 1955 the Service released a feature-length color documentary—"This Is Your Army"—for showing in theatres across the country. For television viewers who tuned in their sets on early Saturday or Sunday mornings, "The Big Picture" provided a contrast to *Sergeant Bilko*, depicting the Army as a progressive, technologically advanced organization with a vital worldwide mission. In 1955 the Army claimed that 394 of the nation's 417 television stations carried "The Big Picture."[13]

Though not part of the Service per se, the Association of the United States Army (AUSA) became an increasingly important public relations instrument. Founded in 1950, AUSA was a somewhat somnolent organization during its early years. But the "New Look" prodded AUSA and its journal, *Army*, into becoming aggressive advocates of the Service's interests. Beginning in the fall of 1955, AUSA held yearly conventions that brought together senior soldiers, politicians, journalists, and industrial leaders. This annual meeting served to showcase the Army's latest hardware and permitted some modest bragging about recent Service accomplishments. It also helped the Army gain the ear of influential opinionmakers and express its views on defense issues.



US Army Photo

US Army recruiters advertise their Service's commitment to high technology by carrying replicas of the NIKE Ajax missile on top of their sedans in the early 1950s.

More important than these efforts to refurbish its image was the Army's attack on the very underpinnings of the "New Look." As our review of NSC *162/2* illustrated, massive retaliation constituted the basic military strategy of the United States from the early days of the Eisenhower administration. Senior administration officials did not view massive retaliation merely as a theoretical principle vaguely related to US national security. Rather, the President himself had explicitly endorsed it. His closest associates had affirmed its central place in the administration's thinking. It was national policy. As such, one might have expected Army leaders to have accepted massive retaliation and to have focused their efforts on carrying out the President's will. But this view proved to be far from the case. From 1953 on the Army's spokesmen attacked massive retaliation relentlessly, criticizing it as ineffective, unrealistic, and immoral.

In approving the concept of massive retaliation, the administration had taken only a first step toward making it into effective policy. Full implementation meant incorporating the concept into existing directives and plans that provided detailed guidance to the bureaucracy. This process gave opponents of massive retaliation opportunities to challenge it as each of these directives was revised in light of the new thinking.

The Army's leaders seized on these opportunities. At first they confined their opposition to the closed inner circles of the National Security Council (NSC) and the Joint Chiefs of Staff (JCS). But frustration soon inspired more vocal and at times downright obstructionist tactics. Whether due to the Army's doggedness or the cogency of its arguments, the Service's critique eventually earned widespread acceptance. To the Army's chagrin, however, the declining legitimacy of the concept of massive retaliation did not result in a redistribution of defense resources more favorable to the Army. That redistribution would await the coming to power of a new administration.

In approving *NSC 162/2* in October 1953, the President directed the National Security Council to use it as a basis for redefining US objectives in the event of war with the Soviet Union. Given a strategy intended to deter war, defining objectives to be pursued during war had the look of a fairly gratuitous exercise. Nonetheless, this requirement, eventually resulting in a document known as *NSC 5410/1*, provided one of the first chances to challenge massive retaliation. The Army used this chance to point out some implications of the administration's willingness to countenance all-out nuclear war.

In a preliminary draft the NSC Planning Board defined the primary US wartime objective as the "destruction of both the military capability and military potential of the Soviet bloc."[14] Military capability referred to the armed forces of the Soviets and their allies. Military potential meant industrial capacity and, of necessity, cities. In subdued and unremarkable language the National Security Council was proposing that the United States reduce Eastern Europe, the USSR, and China to a nuclear wasteland. Having achieved this aspect, the sole remaining military task would be for occupation forces to take control of the defeated and largely destroyed enemy nations.

Asked by the JCS to comment, the Army War Plans Branch prepared a stinging critique of the NSC draft. Obviously, the NSC envisioned only a limited role for the Army in such a nuclear war. Yet the Army doubted whether conditions following a massive nuclear attack would permit it to carry out even a simple occupation mission effectively. The

Army accused the NSC of overlooking "serious problems" of fallout that would enormously complicate the occupation of defeated countries.

More fundamentally, the Army questioned the sense of laying waste to the Soviet bloc in the first place. What possible political purpose could such an act serve? According to the Army, the National Security Council had "failed properly to consider the implications of unlimited nuclear destruction of military potential" as an objective. In the Army's view, the political and economic implications of such an act were resoundingly negative. For example, the United States had expressed a longstanding determination to free Eastern Europe from Soviet domination. A war that made them nuclear targets, said the Army, would be unlikely to encourage Eastern Europeans to defect from the Soviet orbit. Even victory would create new problems on a scale matching the war's devastation. Not least among them, the United States would face stupendous difficulties in struggling to reintegrate its defeated adversaries into the world economy. The Army criticized the Council for ignoring the mind boggling problem of establishing "economically viable postwar successor states" out of the ashes of the defeated. And lastly, the Army speculated that even in victory, the United States would find its relations with allies and neutral powers poisoned. As perpetrators of a nuclear holocaust Americans would face grave impediments to the establishment of a "postwar world environment friendly toward the United States."

The Army forwarded its critique to the Joint Chiefs on 21 December 1953. When the Planning Board's revised draft of 28 December failed to incorporate any of the Army's points, the Service immediately waded in with another paper. This document offered an alternative definition of US wartime objectives. In it the Army outlined a set of "clearcut guidelines" for a military strategy that unlike massive retaliation, would be politically purposeful. The Army, in this paper, came close to rejecting nuclear weapons altogether, a proposal that must have seemed quixotic to administration officials who viewed nuclear arms as a panacea. Specifically, the Army argued for the following:

- The prohibition, or minimum use, of weapons of mass destruction.
- The restriction of attacks by weapons of mass destruction, if used, to selected tactical targets which would cause minimum human loss and material loss and promote the achievement of military objectives by conventional forces.

This effort succeeded only in preventing a consensus on the draft NSC document. Irreversibly deadlocked, the Joint Chiefs elevated their dispute to the NSC itself at a Council meeting convened on 25 March. Although General Ridgway was in attendance, the President directed Admiral Arthur Radford, the JCS Chairman, to summarize objections to *NSC 5410* for the Council. Radford, no friend of the Army, reiterated the Service's view that an all-out nuclear attack on the Soviets would "inflict such chaos and destruction and suffering" as had not been seen since the Thirty Years War. He mentioned the Army's contention that it was "impossible to visualize" the United States coping with the aftermath of a "victory" won through the indiscriminate use of nuclear weapons. Mindful of this prospect, he concluded, the Army was recommending that the NSC reconsider its intention to use nuclear weapons on a large scale in the event of war with the Soviets.

Eisenhower allowed Radford to complete his presentation, but then responded with "considerable vehemence and conviction." He remarked with evident displeasure that the issues raised "came pretty close" to questioning "the prerogatives of the Commander in Chief." He then expressed his "absolute conviction" that the availability of nuclear weapons to both sides meant that "everything in any future war with the Soviet bloc would have to be subordinated to winning that war." Winning meant waging war to the utmost, using all assets available. The President conceded that "ten years ago [he] might very well have subscribed to ... limitations and restrictions" on the use of force. He also admitted that "we can't tell what we will do after we achieve a victory in what will be total and not in any sense limited warfare." Although acknowledging that his "point of view might seem brutal," the President concluded by insisting that he "simply could not conceive of any other course of action than [one] which would hit the Russians where and how it would hurt most."[15]

Eisenhower suffered no illusions about the probable effects of all-out nuclear war. The results of such a conflict would be horrifying beyond belief. Yet in his view if the horror inherent in all-out nuclear war made it impossible to conceive of a meaningful strategy for such a conflict, that same horror also invested the concept of nuclear deterrence with its value. Fully expecting that he never would order the use of nuclear weapons, Eisenhower was baffled that the Army insisted on taking the **rhetoric** of massive retaliation seriously, analyzing it as if it were a warfighting strategy. "That's the trouble with Ridgway," remarked the President some months later in a similar context. "He's talking theory—I'm trying to talk sense."[16] In brooding over the realities of conducting all-out nuclear war, the Army was concerning itself with a contingency that Eisenhower viewed as too remote to merit serious consideration.

The Army took just the opposite perspective. Ridgway believed that the administration had become enamored with theory—the unproven hypothesis that the threat of nuclear retaliation would prevent aggression. Furthermore, he was convinced that the theory was defective. **Sense** in his view required that the administration weigh the implications of a lapse in deterrence. Required by such a lapse to consider the use of force to protect its interests, a nation too reliant on strategic nuclear weapons would confront a choice between paralysis and catastrophe.

In retrospect, Eisenhower and Ridgway clearly were talking around each other—much to the frustration of each. Still, the President's outburst of 25 March had accomplished this much: it had demonstrated once and for all the futility of the Army's efforts to discredit massive retaliation by depicting all-out nuclear war as devoid of rational purpose. To the President such an argument was irrelevant. As a result, although not altogether abandoning its earlier theme, the Army began to shift the focus of its attack on massive retaliation. Rather than emphasizing the senselessness of general war, Service spokesmen instead pointed to the declining effectiveness of nuclear deterrent. The rapid growth of the Soviet nuclear arsenal publicly was acknowledged as fact. Well before 1960 the USSR would possess the capability to wreak unacceptable destruction, the United States. When this point was reached, the Army argued, the two nuclear arsenals effectively would cancel each other out. A condition of mutual deterrence would exist—but one that inhibited nuclear attacks only. Under the cover of this nuclear shield, Soviet subversion and local aggression would continue on an expanded scale—as *NSC 162/2* conceded. The strength of Soviet conventional forces would provide ample resources for such efforts. To defend its interests and its allies, the United States required comparable forces. The "New Look," the Army pointed out, was eliminating precisely such forces.[17]

By the fall of 1954 the Joint Chiefs collectively began to appreciate the significance of the USSR's growing nuclear strength. But the Army remained alone in insisting that this situation called for an abandonment of massive retaliation and the "New Look." Certainly, the administration showed no signs of recanting. For Ridgway, American inflexibility in the face of changing circumstances threatened to create a situation that would tempt the United States to consider "preventive war." Once nuclear parity seemed imminent, the consequences of Soviet conventional superiority would become inescapable. Ridgway feared that the logic of a preemptive strike to forestall such a radical change in the balance of forces would become compelling.

Ridgway's concerns were not without foundation. American officials did consider preemptive attack as an option at least theoretically available. In 1955, for example, the Air Force proposed to the JCS that the United States launch a strategic attack "whenever it becomes clear that the **intentions** of the communist bloc are to control military allied nations and destroy the United States."[18] The President himself was not immune to such thinking. Ike worried that the cost of an indefinite arms race with the Soviets would drive the United States "into some form of dictatorial government." Faced with such prospects, he continued, "we would be forced to consider whether or not our duty to future generations did not require us to **initiate** war at the most propitious moment that we could designate."[19]

By the end of 1954 frustration within the Army had reached a dangerous level. The Army's views no longer seemed to receive serious consideration. Organizational factors and personalities combined to rob the Army's voice of its previous authority. The creation of the Department of Defense largely had excluded the Army from the center of power. Although Secretary Brucker was an enthusiastic advocate of the Army's viewpoint, the reduction of the Army Secretary to sub-Cabinet rank in 1949 limited his effectiveness as the Army's principal civilian spokesman. In defense matters, the Secretary of Defense had the dominant voice within the Cabinet. Charles E. Wilson, Secretary of Defense from January 1953 to October 1957, was a businessman with little regard for uniformed officers. Wilson and Ridgway disliked each other intensely, to the point that Ridgway scarcely could bring himself to speak to the Secretary of Defense.[20] Differences over issues became indistinguishable from the personality conflict separating the two men. General Barksdale Hamlett, then a brigadier assigned to the Pentagon, pungently captured the Army's view of this conflict: "Wilson was out to get Ridgway; there is no doubt about it, and we knew it down on the staff."[21]

On the uniformed side, the formalization of the Joint Chiefs of Staff further reduced the Army's access to senior decisionmakers. Serving as Army Chief of Staff less than a decade earlier, General C. Marshall had enjoyed unlimited access to the White House. The President had consulted Marshall on virtually all major decisions relating to national security and had attached great weight to Marshall's opinions. By the time Ridgway assumed the Army Chief of Staff's mantle in 1953 he found his access to the President much reduced. For the most part, he had to rely on the JCS Chairman to represent the Army's views in the White House. Neither Admiral Radford nor General Nathan Twining, the airman who succeeded Radford as JCS Chairman, sympathized with the Army's perspective on security issues.

Secretary of Defense Charles E. Wilson at his weekly press conference in 1953. He was a businessman who had little regard for uniformed officers.
US Army Photo

General Ridgway felt keenly the problems resulting from the diminished status of the Army's two senior representatives. In April 1954 Ridgway urged Brucker as a matter of the "greatest importance" to obtain Army representation at all NSC meetings.[22] A year later, on the eve of his retirement, Ridgway returned to this theme. Again he urged Brucker to "seek Service Secretary membership on the National Security Council." On this occasion Ridgway specified the additional need for either the Army Secretary or Chief of Staff to be "consulted by the President ... on all major matters ... in which the Army has a major interest."[23]

Ridgway's comments summarize nicely the Army's unhappiness with the state of civil-military relations in the mid-1950's. At the time, however, they proved totally ineffective as a blueprint for reform. Outside of the Army support for changes that would increase the voice of the individual Services did not exist. Service views were considered "parochial" and "biased." Sound military thinking that considered the interests of the country as a whole transcended Service lines. No one believed this more strongly than Eisenhower, whose experience with joint and combined operations during World War II and as NATO Commander during the Korean War had convinced him of the evils of Service parochialism.

Eisenhower valued the military advice of the Joint Chiefs, but fully expected that it would come to him undiluted by Service considerations. He told the Chiefs at one point that he personally involved himself in their selection only to assure himself that he was getting a JCS that would concern itself with "where we are going in overall security terms" and "how we should solve our overall problems." He told the Chiefs that they "should not spend a lot of their time on their internal Services." Rather than acting as advocates of their Services, they should address "military doctrine in its overall terms, its entirety, **not** in minute details ..." Above all they should "think and act as a body."[24] Eisenhower's hopes for inter-Service collegiality continually were frustrated. Nonetheless, the fact that he maintained such expectations doomed Ridgway's hopes for a stronger voice for his Service and also suggests the President's lack of receptivity to the Army's continuing dissent on basic issues.

Even so, at the very end of 1954 Ridgway made one last effort **within** the Government to argue the Army's case. He requested through Secretary Wilson to have the chance to register formally the

General Matthew B. Ridgway, Army Chief of Staff, 1953-55. He tried to argue the Army's case within the Government, by challenging the view that massive retaliation could be the major deterrent to aggression.
US Army Photo

Army's objections to existing national security policies. He received that chance on 3 December 1954 at a National Security Council meeting convened specifically for that purpose.

Ridgway's presentation contained little that the Army had not already said at one time or another. He challenged the thesis that "massive retaliatory power" could be "the major deterrent to aggression." He suggested that the use of nuclear weapons in future wars was not inevitable; that if used their effect might not prove decisive; that if used indiscriminately their effect would prove so destructive as to call into question the very contemplation of such a course. He called on the NSC "to reject emphatically any policy of preventive war" as "devoid of moral principle." In lieu of relying on nuclear weapons Ridgway advocated the creation of forces that were "properly balanced and of adequate readiness," contending that their availability would be "the most effective deterrent to general war." Furthermore, he insisted that such forces were entirely affordable and would receive popular support if properly justified to the American people.[25]

Having listened politely to Ridgway's presentation, the President dismissed him at its conclusion. The National Security Council then proceeded to consider what it had heard. Secretary Wilson saw nothing in Ridgway's remarks except an attempted "justification for a much larger Army." Secretary of the Treasury George T. Humphrey said that the United States simply could not afford to maintain "all kinds of forces designed to fight all kinds of wars at all times." Ridgway erred in "beginning with the one-sided premise that the whole [national security] effort should be directed to maintaining the US military posture, with little or no regard of for the maintenance of the US economy." Harold Stassen, the Mutual Security Director, questioned Ridgway's "thesis that we would draw down upon ourselves the hatred of most of mankind if we resorted to atomic warfare." Eisenhower himself rejected Ridgway's suggestion that the Soviets might wage war without using nuclear weapons. More to the point, he agreed with Humphrey that "the United States could not afford to prepare to fight all kinds of wars and still preserve its free economy and its basic institutions." "Since we cannot keep the United States an armed camp or a garrison state," he added, "we must make plans to use atomic bombs if we become involved in a war."[26]

From Eisenhower's perspective, Ridgway's appearance before the NSC had given the Army a fair chance to air its views. Having provided that chance and having been unpersuaded by the Army's presentation, the President now expected to implement his policies without further obstruction. On 22 December he summoned Secretary Wilson and the Joint Chiefs back to his office. He restated his commitment to massive retaliation, indicating his "firm intention to launch [the] Strategic Air Force immediately in case of actual attack." He stressed that "a major war will be an atomic war," and that the Army's role in such a war would be to "maintain order" in the aftermath of a nuclear exchange. Given his view of war, the President stated that he "wanted to make it clear that a priority approach is required" to reorient US forces. That reorientation entailed "holding back on the Active Army" and emphasizing retaliatory forces, defense against Soviet nuclear attack, and such Reserves as would be needed for civil defense in the event that deterrence failed. The President emphasized that this decision was his final personal one. He concluded with the remark that "as Commander in Chief (he) is entitled to the loyal support of [his] subordinates of the official position [he] has adopted, and (he) expects to have it."[27]

Much to the President's chagrin his end-of-year session with the Joint Chiefs did not silence opponents of his defense policies. On the contrary, opposition from the Army in particular became more open and more virulent as the new year began. As if to signal the change in tactics, *The New York Times* on 4 January provided a front page "review" of a newly revised edition of *FM 100-5*, "Field Service Regulations, Operations," the Army's basic doctrinal publication. *The Times* reported that the Army was using the manual to assert its primacy over the other Services and to criticize the policy of massive retaliation.[28] Indeed, the manual seemed to draw a moral distinction between the Army and advocates of massive retaliation. An introductory paragraph stated that "indiscriminate destruction is unjustifiable in a military sense." That same paragraph noted pointedly that "Army forces do not deliberately make or invite war upon civilian populations."[29]

Writing that same month in *The Army Combat Forces Journal*, an Army officer blasted US policy because it, accepted "civil destruction as an object of war." The United States had "forgotten that war is still a political instrument which must have political objectives and methods." Defective American thinking was leading only to "the brutalization of war without purpose, to a preoccupation with mass destruction, [and] to the neglect of political realities."[30]

In an article published the next month, several officers bluntly characterized massive retaliation as "a massive bluff on our part." They asserted that "U.S. concentration on preparing for thermonuclear war" had "weakened our power to resist creeping aggression." Insisting that the Army remained "the decisive arm in war," the authors called for new defense policy that would provide a larger Army prepared for any type of conflict: general or limited, conventional or thermonuclear.[31]

Nor did General Ridgway shrink from stating his continuing reservations about the administration's policies. Asked in a closed session of the Senate Armed Services Committee to give his own views on reductions mandated by the "New Look," Ridgway stated that "the Army could not perform its assigned missions if the cuts are imposed and that they would endanger the security of the country." The Committee's Democratic chairman immediately announced Ridgway's views to the press.[32]

Since General Ridgway continued forthrightly to place himself at the head of this opposition to the "New Look," he soon became *persona non grata* to the administration. Not surprisingly, as the end of his first two-year term as Army Chief of Staff approached, Ridgway was not asked to remain. So in June 1955 Ridgway retired, frustrated but by no means giving up the fight. He did not go quietly. Prior to stepping down, he sent a distillation of his views on defense policy to Defense Secretary Wilson, arch advocate of the "New Look." Though Wilson quickly directed Ridgway to classify the letter, it subsequently was "leaked" to *The New York Times*, thereby gaining the widespread attention for which it undoubtably was intended. Wilson dismissed the letter as "not very important," but it was a bombshell signalling not a last gasp but a further escalation of the Army's attack on administration policy.[33]

In his letter to Wilson, Ridgway reiterated his view that the "mutual cancellation of nuclear advantage" was reducing the likelihood that strategic nuclear weapons would be used for any purpose. Given these circumstances, he said, "no nation could regard nuclear capabilities alone as sufficient, either to prevent or to win a war." Ridgway did not doubt that the Soviets would continue to behave aggressively. But he expected that the character of such aggression would be non-nuclear. Indeed, he went so far as to say that the "USSR, like every other nation, would prefer to avoid the use of nuclear weapons." The critical gap in US defense capability lay in the shortage of forces able to defeat such non-nuclear aggression. Ridgway characterized American military forces as "inadequate in strength and improperly proportioned." The nation's foremost need was for "an immediately available mobile joint military force of hard-hitting character, in which the versatility of the whole is emphasized and the preponderance of any one part is de-emphasized."[34]

If Secretary Wilson expected that Ridgway's departure would mean the end of criticism from the Army, he miscalculated. General Maxwell D. Taylor, who succeeded Ridgway, took up the same cudgel. Taylor was ably supported by the Army's brilliant and outspoken Deputy Chief of Staff for Research and Development (R&D), Lieutenant General James M. Gavin.

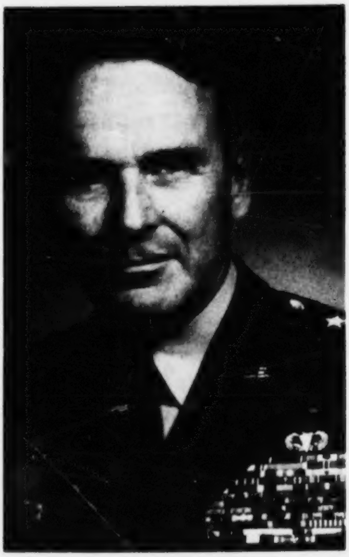
In November 1955 Gavin published an article lamenting "the confused thinking and talking that have obscured defense matters since World War II." For a period of time, the naive belief that nuclear weapons would end the "tough business of land fighting" had held sway, Gavin's article said. But now the United States clearly "could not rely on any one weapon system or any single Service" for its security. "The wisdom of this judgment," he continued, "became quite apparent when the Communists acquired atomic weapons of their own." As in the past, "no easy way to win wars" still did not exist. American forces had to be ready "to win wars, large or small, atomic or non-atomic." This requirement, argued Gavin, demanded an Army with "sizeable forces in being, ready to move by land, sea, or air and fight any time, any place."[35]

Along with other senior Army leaders, Gavin believed that using strategic nuclear weapons could serve no sane purpose. He was not above making this point in the most dramatic way. In secret testimony before a Senate Armed Services Subcommittee Gavin predicted that all-out nuclear war would cause several hundred million deaths. More frightening still, many of the dead would be in neutral or allied countries "depending upon which way the wind blew." When Gavin's testimony later was "leaked" to the Associated Press, an outcry ensued. Lewis L. Strauss, Chairman of the Atomic Energy Commission, complained that the release of Gavin's testimony had violated NSC directives. General Alfred Gruenther, the Supreme Allied Commander, Europe, expressed concern that remarks such as Gavin's would "foster dismay and disillusionment in the value of the NATO alliance." But Gavin had made his point: that the prospect of such "incredible destruction" would serve to decrease the likelihood of all-out war, and thus increase the prospects for what Gavin called "localized conflicts."[36]

In a similar vein in early 1956, Taylor testified to the Congress that "as parity is approximated in numbers and types of atomic weapons between East and West, every effort will be made on both sides to avoid general atomic war." The United States could anticipate "pressures on soft spots about the Soviet periphery through subversion, guerrilla action and coups d'etat, [and] small-scale wars." Responding to any of these situations implied "a land operation with a very limited role, if any, for heavy weapons of mass destruction." The country needed not more nuclear weapons but a "versatile Army" to defeat non-nuclear aggression.[37]

Such suggestions that strategic nuclear weapons would play no role in the "next war" contradicted the essential premise of massive retaliation and irritated the JCS. Rear Admiral Truman H. Hedding of the Joint Staff complained to Admiral Radford that "despite previous agreement by the Joint Chiefs" on the use of nuclear weapons, "the Army at every opportunity reopens the issue and attempts to restate [revise] the policy."[38] Two months later, Radford reminded the Service Chiefs that for planning purposes they would assume the employment of nuclear weapons at the beginning of hostilities. He emphasized, moreover, that such weapons would be no less available in limited wars than in general ones.[39]

Still, the Army refused to acquiesce in arguments that made the use of strategic nuclear weapons an inevitable part of American war policy. As if



General Maxwell D. Taylor, Army Chief of Staff, 1955-59. He called for a versatile Army to defeat nonnuclear aggression. Taylor referred to the two terms of the Eisenhower Presidency and the corresponding revolution in warfare as the Army's "Babylonian Captivity."

US Army Photo

in response to Radford, officers on the Army General Staff passed to a friendly news correspondent a series of classified studies that detailed the Army's dissatisfaction with US strategy. This so-called "Colonels' Revolt" immediately gained exposure for the Army's views on the front page of *The New York Times*. Three years into the Eisenhower administration and in the midst of an election year, one of these Army studies declared that "the United States is grossly unprepared to meet the communist threat." The administration had "violated the first principle of strategy—indeed, of common sense—by failing to shape our military strength to meet the likely dangers." Worse, the Army study noted, "we continue to pour excessive manpower and money into an Air Force which has been substantially neutralized [by the Soviet Union's growing nuclear strength] and which pleads for more money, more money, more money." The Army study predicted that if the United States failed to correct the imbalances in its military structure, its position would "disintegrate to a point where we shall be forced into either total war or subjugation.[40]

One month later, the drafting of the "JSOP (Joint Strategic Objectives Plan) Strategic Concept" provided another opportunity for the Army to make its point. The Joint Staff's initial draft of this document asserted unequivocally that "in a general war, regardless of the manner of initiation, atomic weapons will be used from the outset." The Army refused to accept such language. In its place the Army suggested a more complex view that would restrict the use of strategic nuclear weapons to certain specific (and relatively improbable) scenarios. Within a few years, the Army's alternative began,

> The reciprocal capability which each side will have for destroying the other may be expected to make the adversaries very reluctant to initiate unrestricted atomic war and to incline them to seek a limited use of atomic weapons ... It is more likely that general war may start by a series of actions and counteractions between the Sino-Soviet bloc and the U.S. and its allies than by a Soviet onslaught at the outset. For planning purposes, it may be assumed that the U.S. will certainly use atomic weapons when USSR forces attack the United States or attack U.S. military forces overseas in a manner which threatens their survival. In other cases, the use of these weapons will depend on the decision

> of the President in the light of U.S. national interests.[41]

The implication was clear—at least as the Army saw it—that only in rare instances would "U.S. national interests" benefit from the use of strategic weapons.

The Army blocked the consensus needed to redraft the JSOP and angered the JCS Chairman. Radford turned to Defense Secretary Wilson for help. The trouble with the Army, according to Radford, was that its thinking was "still based on the large-scale use of US ground forces in peripheral areas"—as had been the case in Korea. Worse still, the Army "visualizes peripheral wars of considerable magnitude in which we do not use atomic weapons." Again, Korea provided the model for such a non-nuclear war. But such notions were nonsense to a true believer in massive retaliation. Radford insisted to Wilson that the role of ground forces in future wars was not fighting but "the maintenance or restoration of law and order, and rehabilitation within the United States." The Army would clean up the messy aftermath of nuclear war, combining the functions of constabulary and civil defense agencies. Such responsibilities would require neither a large nor particularly well-equipped Army. But they needed an Army that instead of fighting the problem quietly accepted its allotted role.[42]

This struggle over military strategy and the Army's role in it persisted to the very end of the Eisenhower administration. The Army's continued attacks on strategic nuclear weapons persuaded neither Radford nor his successor, General Nathan Twining. More importantly, the President never wavered in his commitment to massive retaliation.

Army leaders consequently found Eisenhower's second term as frustrating as his first. Both Gavin and Taylor followed Ridgway into exasperated retirement. Like Ridgway, both published widely-read critiques of Eisenhower's military policies and outlined alternatives that provided a more prominent role for the Army.[43]

In the end, the cumulative weight of criticism directed against massive retaliation—coming not only from inside the Army but from influential civilians as well—succeeded in persuading everyone except Eisenhower and the core of his administration. By the time Ike left office his military policies were in tatters, widely seen as too rigid, too unimaginative, too lacking in boldness. The stage was set for a new strategy, one built around the catch phrase, "Flexible Response," whose author, Maxwell Taylor, would enjoy a remarkable resurrection. The Army's role in this strategy would be profoundly different and much more central to its implementation. In that sense, the Army eventually won its long struggle to discredit massive retaliation. Whether or not the new strategy would benefit either the Army or the nation remained to be seen.

3. Design for a New Army

However persuasive, the Army's critique of massive retaliation alone would not be enough to prescribe the Service's role after Korea. If Eisenhower's defense strategy was inadequate, then what should take its place? If, as General Taylor remarked in 1955, the Army "decline[d] to accept civil defense ... as a primary mission," then what mission did the Service propose in its stead?[1] Efforts to answer those questions and recast the Army into an instrument for implementing such an alternative strategy absorbed the attention of the Service's best minds throughout the Eisenhower years.

Lieutenant General Paul W. Caraway later recalled that the critical imperative during the years after Korea was "to find some use for the Army."[2] The Eisenhower administration's strategy of deterrence created strong incentives for the Army to organize itself to prevent wars rather than fight them. Ridgway resisted that inclination. His view of war retained strong traditionalist overtones, largely unaffected by the advent of nuclear weapons. "When a nation chooses war rather than one of its political alternatives," he told the Council on Foreign Relations on early 1955, "it simply uses a device for achieving national objectives by force: a military means to a political end." Viewed in this context, the Army's priorities remained clear: "The Army exists for the single purpose of victory in battle and success in war," although he allowed that "it may have the subsidiary purpose of being a deterrent."[3] Ridgway thus rejected not only the strategy of massive retaliation, but one of the operative principles of deterrence: that the nation would maintain military forces not to fight wars, but to prevent them. Whatever the objective merit of Ridgway's views, they were totally out of step with the political climate existing in the United States after Korea. The country was fed up with war and counted on nuclear weapons to preclude fighting in the future. The idea that nuclear weapons had made all war obsolete was becoming increasingly fashionable. Ridgway's insistence in the face of such expectations that the Army existed to fight made his failure inevitable.

Sensitive to Ridgway's failure yet no less opposed to massive retaliation, Taylor believed that the Army had erred in dismissing deterrence so cavalierly. As long as deterrence remained the cornerstone of atomic age strategy, political realities required the Army to conform in some measures to its demands. In order to obtain its fair share of a defense budget shaped by requirements of deterrence, the Army needed to demonstrate that it too could play an important role in the prevention of war. As a result, during Taylor's tenure as Army Chief of Staff, the Army adopted the language of deterrence in establishing its claim on defense resources. "Like all other elements of our national defense programs," Taylor said in a speech in October 1955 "the Army justifies its existence primarily as a deterrent force to prevent war."[4] Taylor agreed with Ridgway that non-nuclear aggression would flourish under conditions of nuclear plenty. Even in explaining the need for forces to counter such aggression, however, Taylor clung to the logic of deterrence. The nation needed "balanced strength ... in various forms appropriate to deter or to fight small wars," he remarked in a typical speech, so that it could "put out brush fires promptly before they can spread into general war."[5]

Did remarks such as Taylor's reflect a real shift in the Army's thinking? Probably not. A review of what Taylor told closed Army audiences about the Service's role suggests that the Chief of Staff shaped his public remarks to correspond to the expectations of his listeners. Speaking in private, Taylor, like Ridgway, believed that the Army existed for "achieving national objectives by force." Taylor summarized his own view of the world situation in a speech at the Army War College shortly after becoming Chief of Staff. The United States and its allies, he said, "represent in general the 'have' nations whose interest it is to preserve the status quo." The West's relative prosperity made it "a fair target for the aggressive designs of our enemies." Sustaining that prosperity required the West to maintain access to the markets and resources of countries beyond the Alliance. If threats developed against such Third World countries, Taylor viewed it as in "our national interest to prevent the absorption of their resources by the communist bloc." In sum, the aim of American national policy was to maintain the existing world order. Military force would support that aim by retaining its historic function of bringing about or preventing change to that order. What did this historic function mean for the Army? In Taylor's view, it had generated "a new awareness of [an] obligation to prepare to meet local aggression anytime, anywhere."[6]

Taylor acknowledged that such views were not widely held outside the Army. He returned to the War College a year later to report that the Army's efforts had been "somewhat hampered by what I call 'the fixation on the big war'." He continued as follows:

> Certainly when we get before Congress I'm always impressed with the fact that our civilian leaders when they think [of] war ... almost always equate that to general atomic war, the war which starts with a surprise onslaught on D-Day. [As a result] there is a blurred perception ... of the possibility of other forms of warfare equally as important and which require preparation to an equal degree.[7]

Unable to generate enthusiasm for their concept of a warfighting Army, senior officers thus bowed to prevailing fashion in adopting the language of deterrence to explain Service needs. They hoped to organize the Army, given adequate resources, for both a politically expedient role in deterrence and for fighting the wars that they fully expected to occur when deterrence failed.

The Army's rejection of massive retaliation and its skepticism about deterrence did not imply a static view of how wars would be conducted. On the contrary, most officers believed that warfare had entered a period of tremendous change. The purpose of warfare might remain constant, but its conduct was being altered by what Gavin described as "a technological revolution of the most profound nature."[8] As never before, the Army focused on a simple factor—technology—as the principle determinant of how wars would be fought. Technology undermined old assumptions, rendered traditional practices obsolete, and seemed to require a radical overhaul in the way that the Army equipped and organized itself. In the 1950s, according to two influential soldier-scholars, "one of the few certainties is the continual racing change in military technology."[9] "The Army is burning its military textbooks," Taylor told a graduating class at the Command and General Staff College, "to clear away the old and make way for the new."[10] A letter from Lieutenant Colonel William R. Kintner, an influential Army planner, to Henry Kissinger, then with the Council on Foreign Relations, captures the spirit infecting the Army as follows:

> The new factor in evaluating the military equation is the dynamics introduced by a rapidly shifting weapons technology. In this sense, weapons are

> crucial since new weapons require constant restructuring of forces and new strategy and tactical concepts. The upheaval this is causing in military circles is reflected in the fact that weapons ... are tending to become obsolescent before they even become operational.[11]

Weapons technology meant, above all, nuclear weapons. Despite its rejection of massive retaliation the Army was far from blind to the implications of Hiroshima. Although unwilling to rely on **strategic** nuclear weapons as the sole guarantor of American national security, most Army officers firmly believed that nuclear weapons of a **tactical** variety would decide the outcome of the next war. As an officer wrote, in a rivalry between nuclear-equipped powers "the one which best employs them, which molds superior organization and tactics around the new tools of warfare, will possess an immense, perhaps decisive, advantage."[12] Moreover, few officers doubted that nuclear weapons would make their appearance on the battlefields of the next war. Most agreed with a general officer who concluded that "as atomic weapons become relatively plentiful, they would also become 'conventional'."[13] Another officer noted with approval that "we are getting over the trembles and are now going about the business of working the atomic bomb into our weapon systems."[14] Indeed, once they had stopped trembling Army officers loosed a flood of discussion about nuclear issues. The contents of *Military Review*, the Army's foremost professional journal, provide an interesting indicator. The index of the *Review's* Volume 33, covering the period April

1953–March 1954, lists only two items under "atomic warfare." Neither was a full-length article. The number of "atomic" entries increased with each year; Volume 38 (April 1958–March 1959), for example, contained 36 entries, most of article length.

Yet coming to terms with this atomic revolution did not require the Army to sever its ties to the past. Indeed, in many respects American military history—as far back as the Civil War and as recent as Korea—had predisposed the Army to embrace nuclear weapons. The American approach to war long had favored the substitution of technology for manpower as a method of achieving military success with fewer casualties. Adding nuclear weapons to the Army's arsenal promised to reap such savings on an unprecedented scale. In the words of one officer, "the American tradition of [using] machinery and technology to save manpower" had established "an unmistakable requirement for tactical nuclear weapons."[15]

Consistent with this preference for machines-over-men was the Army's perennial position in the debate on whether maneuver or firepower provided the decisive ingredient in land combat. In practice (though not always in published doctrine), the Army traditionally had come down in favor of firepower. Lieutenant Colonel George B. Pickett, later a major general, called this emphasis on firepower "our military heritage ... initially conceived by General Ulysses S. Grant in front of Petersburg in 1864." The American Army long had recognized artillery as the "King of Battle." Pickett approvingly traced this primacy of firepower as far forward as

Korea, where the "'Van Fleet' day of fire" had placed a similar emphasis on "volume of fire to smother the enemy defenders." Even without nuclear weapons, said Pickett, "Korea showed that firepower defeats manpower in almost every encounter."[16] To most officers in the immediate aftermath of Korea nuclear weapons seemed only to carry this "ascendency of firepower" to its logical and ultimate conclusion.[17] General Willard G. Wyman, commanding the Continental Army Command (CONARC), pointed to the implications of this notion. Thanks to nuclear weapons, he declared, "tactical firepower alone can now accomplish the purpose of maneuver."[18] Thus, in the view of the officer responsible for developing Army doctrine, nuclear weapons had made maneuver obsolete.

For what purpose would the Army employ such awesome weapons? Traditionally, American soldiers had defined the proper objective of military action to be the destruction of the enemy force. Experience in Korea had both reinforced this view and expanded the groundwork for adopting tactical nuclear weapons.

In Korea, the Army had gained extensive experience fighting first North Korean and then Red Chinese forces. After the war soldiers extrapolated from their experiences to draw general conclusions about the tactics that communist armies would employ in future wars. Many concluded that communists did not share the Western regard for human life. Poor in most of the resources needed to conduct war, communist countries made good their material shortage through the prodigious expenditure of the manpower that they possessed in plenty. The "human wave" or "human sea" attacks in Korea were the result. Reflecting an assumption common throughout much of the Army in the 1950s, one officer concluded that the "disregard of human losses ... by Chinese Communist forces in Korea" would be "a standard tactic of any Soviet indoctrinated force."[19]

Here again the apparent advantages of nuclear weapons meshed well with preconceived notions common in the officer corps. Communist tactics seemed to demand the bigger bang that tactical nuclear weapons would provide. As one military writer concluded, only nuclear weapons could help the United States "avoid the ruinous situation of having to meet the hordes of communism man for man, gun for gun ..."[20] And another book by a pair of well-known Army strategists extolled nuclear weapons as a "devastating rebuttal to 'human sea' tactics resorted to by aggressors utterly indifferent to casualties."[21]

Thus, a traditional bias toward technology, a penchant for firepower, and expectations regarding communist tactics all predisposed the Army toward tactical nuclear weapons in the 1950s even as the army was challenging the utility of strategic nuclear weapons. Yet countervailing factors, no less important, also were at play. These factors raised doubts as to whether tactical nuclear weapons alone were the panaceas that their advocates claimed. These factors, as a result, complicated the business of redefining landpower for the 1950s and beyond.

Faith in the primacy of firepower and frightening images of communist "human wave" tactics did not comprise the Korean War's entire legacy to

American military thinking. The war also brought about indelible changes in the concept of readiness. Before June 1950, with few exceptions, intensive train-up periods had preceded the commitment of American ground forces to combat operations. After the declaration of hostilities, rather than immediate fighting, a crash training program intending to bring US forces up to an adequate standard of proficiency was the norm. Depending on the opponent, the training program may have been brief, as in 1898, or much longer, as in 1917–1918. In any case, the expectation of conducting such training before committing even regulars to combat reflected and reinforced the indifferent level of readiness maintained in the peacetime Army.

In some instances, the Army had paid dearly for its inability to shift quickly to a war-footing. Certainly, the initial American campaigns of World War II painfully illustrated the price of unpreparedness. For the most part, however, the Army avoided the implications of such failures. After all, in the broad military sense, episodes such as Bataan or the Kasserine Pass* were irrelevant. In the end

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***Bataan** is a peninsula and province in western Luzon, the Philippines, between Manila Bay and the South China Sea. Early in World War II (December 1941-January 1942), the US-Filipino army withdrew to Bataan, where it entrenched and fought a holding action that upset the Japanese timetable for conquest. The army finally was overwhelmed on 9 April 1942. The troops captured there were subjected to the infamous "Death March" to the prison camp near Cabanatuan; thousands perished. The **Kasserine Pass** is a two-mile-wide gap in central Tunisia, in the Grand Dorsal chain, an extension of the Atlas mountains. The pass was a key point in the allied offensive in Tunisia in World War II; the pass was the scene of an Axis breakthrough on 20 February 1943, but was retaken with very heavy losses by US forces on 25 February 1943.

we won anyway. So the Army found it easy after World War II, as it had after every other war, to revert to traditional habits: a peacetime routine more notable for its easygoing pace than for its rigor.

The Korean War shattered such complacency ... and in this sense marked a decisive break with the Army's past. The war began without warning. American occupation forces in Japan deployed directly into combat within days of the North Korean invasion. The first units arriving in Korea, most notoriously *Task Force Smith*, were under strength and short of equipment. The equipment that they had was in poor condition. Much of it was obsolete. Soldiers and leaders alike were ill-trained and lacked the stamina to withstand the ordeal of combat. As an officer wrote in retrospect, they displayed the "habitual, slapdash carelessness" that so often had marked American forces going into combat.[22] And as a direct result of the neglect that these units had suffered they endured humiliating defeat. Because of their failure the United States came within a hair's breadth of losing the war in its first three months.[23]

Although the United States managed to avert complete disaster in Korea, the Army could not deny that it had been a near thing. If Korea were to be a model for future Cold War confrontations—what a senior officer called "Limited War One"—traditional standards of readiness no longer would suffice.[24] The prospects of no-notice intervention demanded units that were instantly available for deployment and **prepared for combat.** "In the past, we have always had time" to complete such preparations "after we had already declared war," declared General Williston B. Palmer, the Army Vice Chief of Staff, in 1955. Henceforth, however, "if there is one thing plain to every man, it is that we no longer have that kind of time at our disposal."[25]

Expectations for a no-notice war obliged the post-Korea Army to maintain routinely an unprecedented level of readiness. But where would this combat-ready Army be deploying? And what kind of war would it fight when it got there?

The Army could find no simple answers to these questions. The worldwide character of communist aggression and the worldwide scale of American interests and military deployments suggested that war could break out in any of a score of localities. In this regard, Korea served not to focus the Army's attention on Asia, but rather to reinforce an awareness that the next war could well break out where least expected. Who, after all, would have predicted before June 1950 that the United States would fight a major land war in Korea?

Nor was the Army at all certain what type of war it would fight. Surprisingly absent were Korean-induced blinders that might have convinced Army leaders that the next war would echo the one fought from 1950 to 1953. Instead, the Army postulated a spectrum of contingencies that it might face. At the far end of the spectrum was all-out nuclear warfare or a war featuring conventional forces on a scale approaching World War II complemented by the use of nuclear weapons. Of greater likelihood were lower-intensity conflicts, wars that conventional forces fought with or without tactical nuclear weapons—guerrilla conflicts like the French fought in Indochina, for example, or campaigns against the subversion at which communists seemed so adept. And, of course, endless permutations of these types of conflicts were seen. A war might combine conventional fighting on one front with guerrilla warfare on another. The war might occur in frozen wastes, or jungles, or desert; it might begin with conventional weapons only and then go nuclear. Dismissing all-out nuclear war as the least likely of all contingencies, the Army saw its challenge as preparing itself to face all of these other possibilities practically on a moment's notice.[26] "In the uncertain world of tomorrow," General Gavin wrote in 1955,

> the United States faces the need for greater military preparedness than ever before. As the Free World's leader, our nation seeks to prevent aggression in *any* form. The military role in supporting this national policy is to be able to win wars, large or small, atomic or non-atomic.
>
> This is a very big order. It establishes a new function for the Army; that is, in addition to being able to mobilize for a large-scale war, the Army must have sizable forces in being, ready to move by land, sea, or air and *fight* any time, any place.[27]

It indeed was a big order. While national leaders in the thrall of the "big bang" foresaw an ever diminishing utility of ground forces, the Army was claiming responsibilities of breathtaking scope and difficulty.

Reshaping the Army under such a multifaceted mission—and doing so during a period of constrained budgets—called for basic institutional changes. As a result, within the Service the Eisenhower years sparked an outpouring of innovation, debate, and controversial reform.

The first problem to present itself was intimidating. The next war might assume any of a half-dozen forms and might occur in a variety of environments. What, if anything, did each of these hypothetical conflicts share in common? Would the Army have to divide itself into distinct components, each training for a specialized type of combat? Or would a universal methodology prepare the Army as a whole for any war across the spectrum of conflict?

These potentially troubling questions detained the Army only briefly. For the most part, the Service simply assumed away the issues these questions raised. To practical minded soldiers no question existed about the necessity of maintaining an Army consisting of several armies—a nuclear army, a conventional army, and a counter-guerrilla army, one for jungle warfare and another for mountains. Limited resources ruled out such a course of action, of course. Brigadier General William F. Train pointed out the consequences of these constraints in the simplest terms as follows:

> We cannot afford the luxury of one type unit to fight an atomic war and another to fight under non-atomic conditions. Our tactics, organization, and equipment must be adaptable to either.[28]

General Taylor endorsed "this duality—the built-in capability to use atomic and non-atomic weapons in any combination" as a "basic necessity."[29] Along with Taylor, most of the Army's leaders never doubted that such a dual capability could be achieved. They treated as dogma the proposition that even in a nuclear age all wars remained alike in their essentials. Certain common principles, described by General Lemnitzer as "by their very nature . . . immutable," governed the conduct of war and would continue to do so in the future.[30] Only in the application of those principles did conflict change from age to age.[31] Little indication exists that officers in the 1950s in practice made much use of the classic principles of war. Nonetheless, the unproven but widely accepted **idea** of their unifying relevance convinced many that finding a doctrine applicable to war in all its varieties simply was a matter of ingenuity and hard work.

If the challenge of organizing to do all things equally well still seemed daunting, the Army further reduced the scope of the problem with another key assumption. Army leaders decided that conventional war simply was a lesser included case of nuclear conflict. Nuclear war was the "worst case"—though not necessarily the most probable. If the Army could develop techniques to fight a nuclear war successfully, other less-demanding conflicts would be manageable. Consequently, even as it argued with increasing vehemence against massive retaliation, the Army bent its best efforts to develop methods that would make it an effective instrument of nuclear warfare.

Within remarkably short order, the Army evolved a conceptual view of the course such a war would follow and of the role that landpower would play in it. Almost as quickly officers began to outline a set of broad concepts—hardly more than a vocabulary really—that prescribed the qualities the Army would need to fight a nuclear war. Throughout the 1950s Army officers repeatedly referred back to the abstract generalities of this vocabulary. Much more slowly—and in the end without achieving real success—the Army struggled to convert these concepts into concrete, practical methods for warfighting.

In visualizing how the next war would occur, the Army drew a sharp distinction between strategic and tactical nuclear weapons. As we have seen, the Army had argued that the strategic arsenals possessed by the United States and the Soviet Union offset each other, thereby creating a condition of mutual deterrence. Army leaders also believed that, even in the absence of such an offsetting balance, the vast destructiveness of strategic nuclear weapons had made them militarily useless. Fundamentally, the Army rejected strategic nuclear weapons because they made no sense in the context of war as a political act.

Such considerations did not diminish the Army's enthusiasm for tactical nuclear weapons. To most soldiers small-yield nuclear weapons used in support of battlefield operations were not a revolutionary development. Instead, they seemed a logical culmination of the longstanding historical trend toward fielding more efficient sources of firepower.

Such weapons were noteworthy only as a singular example of the technological genius that had become a hallmark of the American way of war. They seemed to provide the ultimate in technology, establishing the qualitative edge that could compensate for American numerical inferiority.[32]

In the next war tactical nuclear weapons would provide the great equalizer.[33] The Army expected war to begin not with a big bang, but with a small bang. Rather than launching nuclear attacks against American cities, communist forces would initiate hostilities with nibbling aggression "carefully calculated in advance to be well below the high level of mutual risk posed by the strategic nuclear threat."[34] These attacks and initial American resistance would be conventional—perhaps resembling the fighting in Europe during World War II. But to defend successfully—to defeat the aggressor—the Army expected early in the war to resort to small-yield, limited-range, highly accurate nuclear weapons, delivered either by cannon or rocket. These weapons would provide the crucial differential, allowing outnumbered American fighters to win.

Yet—and this aspect was vitally important—in achieving victory with these weapons the Army would preserve the framework of traditional combat. For the destructive power of these weapons alone would not be sufficient to bring decision. Rather, their importance would lie in their matchless ability to provide support to ground tactical operations. In this sense the Army viewed tactical nuclear weapons not as small-scale strategic bombs, but as artillery of unprecedented effectiveness.

Tactical nuclear weapons therefore would complement ground forces, not supplant them. They would help the ground arms break the enemy attack, and create conditions to allow our own armor and infantry to launch a counteroffensive. The requirement for sizable ground forces—to meet the attacker in close combat, eject him from friendly soil, and, if need be, occupy his territory—remained intact. From this perspective, introducing tactical nuclear weapons in no way jeopardized the historic role of land power.[35]

Yet despite the survival of a traditional framework for combat, such a conflict would require new techniques. To carry on with proven methods of World War II and Korea would not do, especially since our adversary's ability and willingness to employ nuclear weapons would trail only slightly behind our own. To win the next war the Army needed not only to master the techniques of fighting on a nuclear battlefield, but also to minimize the effects of the other side's nuclear capability. With this view in mind—still at a broad conceptual level—the Army attempted to define the qualities that atomic-age forces needed to survive and to prevail.

Securing the force—preserving it from the effects of nuclear attack—was a major concern. Protection of trench and rampart no longer sufficed. The expense of constructing fortifications—assuming that an Army with a global mission knew where to construct them—promised to be astronomical: the Maginot Line seemed a trifle in comparison. Worse, soldiers of the 1950s recalled vividly the physical and moral debilitation of the French in

1940, beguiled by their line of concrete fortresses. That view—and the ultimate irrelevance of the Maginot Line to the outcome of the Battle of France—hardly recommended static fortifications as the key to security on a nuclear battlefield.[36]

An alternative to burrowing into the earth was to avoid presenting a target worthy of a nuclear weapon. Army planners assumed that even an era of nuclear plenty would find combatants with only a finite number of nuclear weapons. Prudent commanders would reserve such weapons for the best targets. Perhaps the best way to reduce the effects of the enemy's nuclear arsenal was to deprive him of those targets.

Rather than massing in expectation of an enemy attack, American forces would disperse both laterally and in depth. "We see no lines of entrenchment as we have known them in previous wars," said General Wyman, adding the following:

> No masses of men waiting in reserve. No roads jammed with trucks moving to the front. In fact we see no front. Only a battle area.
>
> Within the battle area, to a depth of as much as 100 miles or more, we see small mobile units deployed at intervals measured in miles instead of yards.[37]

Such scattered deployment would lessen the enemy's incentive to expend his tactical nuclear arsenal, since he would have difficulty finding targets worthy of such costly weapons. Even if he used them, spreading out US forces in what an officer described as "dispersed and well-ventilated formations" would minimize the damage from any single weapon.[38] **Dispersion** thus became the first imperative in the Army's concept of nuclear warfighting.

Of all the principles of war, security most lacks a positive aspect. Attention to the security of his force may keep a commander from losing a battle, but it cannot of itself bring victory. Army leaders in the 1950s recognized that dispersion alone would not enable them to prevail in the next war. Whether attacking or defending, the successful commander still would have to concentrate his forces—however briefly—to blunt the enemy's attack or to take advantage of his vulnerabilities. Even on a nuclear battlefield, mass did not entirely lose its importance. The trick was to mass forces rapidly at the critical time and place, to deliver the decisive blow, and then just as quickly to disperse again, thereby regaining the margin of safety against nuclear retaliation. "Concentrate to fight—Disperse to live" was one officer's succinct attempt to summarize a "formula for victory."[39]

This rhythm of concentrate-strike-disperse would tax the abilities of commanders and staffs. The area encompassing such operations necessarily would be much greater than equivalent forces had occupied in earlier wars. And the tempo of execution would quicken. Greater distance and more fluid movements would combine to complicate the problems of getting forces to the right time and place in a coherent posture and of coordinating their use once there. The challenge, as General Gavin saw it, lay in "learning how to control the amorphous mass of men who must be dispersed over an entire zone, an entire tract of land, dispersed thinly enough not to invite bomb blast, yet strongly enough to tackle the enemy ..."[40] **Flexibility,** particularly as measured by responsive command and control, consequently emerged as the second imperative for modern war. But flexibility comprised only one of the essentials needed for the fluid battles of the next war. No less important was **mobility.** Colonel Edward L. Rowny, who after retiring as a lieutenant general would become the Reagan administration's chief arms negotiator, expected that the ability to move forces rapidly would assume "unprecedented significance" in future wars. He predicted that "words like 'fast,' 'quick,' 'speed,' and 'now' will inevitably dominate the language describing the techniques of conducting atomic warfare."[41]

Such sentiments appeared repeatedly in military writings of the 1950s. The atomic-age Army would require unprecedented mobility both tactically and strategically. Improving the Army's ability to move troops on the battlefield meant expanding mechanization and exploring the promise of the helicopter.[42] Gains in mobility would allow commanders to capitalize on the advantages of atomic fire support. As General Taylor told the Congress, "the problem of the ground commander will be to find the enemy, to determine his configuration, and then to destroy him by directing atomic fire upon him ..." At that juncture, he emphasized, "the commander will need instant mobility to exploit the effects of this destructive fire."[43]

But given the country's global interests and the possibility of the next war breaking out in any corner of the world, the Army needed to move quickly not just **on** the battlefield, but **to** it as well. Improving strategic mobility required two things: a major investment in long-range airlift by the Air Force; and a redesign of the Army to make its organizations and equipment air-transportable.[44]

Dispersion. Flexibility. Mobility. These three terms became the Army's watchwords in the years following Korea. Army spokesmen referred to them repeatedly—in congressional testimony, official reports, speeches, and articles. The terms took on the semblance of mantras, chanted again and again, cherished for their simplicity; but in the end they obscured as much as they enlightened. For despite the Army's apparent success in identifying military imperatives of the atomic age, moving from the abstract to the concrete would prove much more elusive.

4. Re-Equipping

The touchstone of the Army officer corps after Korea was the belief that land warfare retained relevance in the atomic age. Circumstances might oblige the Army to play a role in deterrence, but its primary purpose remained to fight the land battle. Techniques for fighting that battle might change, but principles endured. And the importance of land forces continued undiminished. The Army directed most of its energies after Korea to proving this hypothesis.

However zealous their defense of traditional combat, Army leaders were not so imprudent as to think that the could rely henceforth on traditional hardware. The tempo and expansiveness of an atomic battlefield would demand technologies providing improvements in speed, flexibility, range, and precision, comparable to what the atomic bomb had done for explosive power. The Army needed new equipment that would enable other battlefield functions to catch up with the leap forward that weapons effects had experienced since 1945.

Apart from the prospect of greater combat effectiveness, pursuing new technologies promised other advantages as well. No less than the Services themselves, the country as a whole had embraced the idea that technology was transforming warfare. Congressional support for expenditures on "old-fashioned" equipment was limited. The Congress, the media, and apparently the public reacted more enthusiastically to military equipment that could claim to be innovative or imaginative.

Astute officers were not slow to pick up on the country's mood; they proposed to turn this mood to the Army's advantage. In the early 1950s, for example, Major General John B. Medaris, longtime chief of the Army's missile program, counselled his colleagues who still thought in terms of traditional weapons that they were "fighting a losing game." He continued as follows:

> If you put all your energy and effort into justifying these conventional weapons and ammunition, . . . I think you are going to get very little money of any kind. It is far easier to justify a budget with modern items that are popular . . . Why don't you accentuate the positive and go with that which is popular, since you cannot get the other stuff anyway?[1]

Other Army leaders were more circumspect but they essentially agreed with Medaris. Combined with their belief that land forces needed new technologies to "catch up" with nuclear weapons, this assessment of what the public would bear produced an outburst of interest in new and experimental equipment.

In retrospect, some of the notions that the Army toyed with appear outlandish: disposable uniforms made from "non-woven film;" maintenance-free trucks that would be driven 1,000 miles and then discarded; and the use of cargo rockets for battlefield resupply.[2] Other more realistic proposals made a lasting impact on the Army and help illustrate the real implications of this rush to high technology.

In many respects, rockets and guided missiles provided the most exciting and dynamic field of military technology in the 1950s. They promised radical improvements in range, accuracy, reliability, and, when combined with nuclear warheads, in destructive potential. Their promise was not lost on any of the Services. As a result, development and control of guided missiles became the focus of intense inter-Service rivalry throughout the post-Korea period, with competition between the Army and Air Force especially heated. A letter written by General Lemnitzer to General Charles Bolte two days after Eisenhower's inauguration provides a succinct statement of how Army leadership viewed this competition. According to Lemnitzer, then the Army's Deputy Chief of Staff for Plans and Research, the Air Force was "becoming more and more aware of the fact that guided missiles are going to be the aircraft of the future." As a result, the Air Force was "more and more anxious to gain the maximum amount of control over the entire guided missile field." But whatever the Air Force's intentions, concluded Lemnitzer, "I can assure you that we are not going to let them accomplish their ends.[3]

In the early years of their development, guided missiles had a three-fold promise. Looking well into the future, rocketry held the key to **space exploration.** Of greater immediate interest, however, were two military applications. Missiles would provide an improved capability to strike targets deep in an enemy's rear, a capability that nothing—not darkness, nor weather, nor enemy defenses—could stop. Such **long-range attack** missiles would surpass the destructive power of heavy bombers. Moreover, they would combine precision accuracy with the certainty that they always would get through. The second military application, and third prong of the three-fold promise, was **air defense.** Long-range aircraft carrying nuclear bombs posed an unprecedented threat to civilian populations. The devastation that even a handful of such bombs could cause served to impose a new, much higher standard of effectiveness on antiaircraft weapons. World War II gun systems lacked both range and accuracy. Many observers believed that missiles alone possessed the potential to intercept enemy bombers before they reached their targets, and destroy them without fail.

For each of these uses—space exploration, long-range attack, and air defense—the missile's primary medium would be the upper atmosphere and beyond. Despite this fact, at no time did the Army consider that it might concede primacy in missiles to the Air Force. Rather, with persistence and no small amount of brashness, the Army elbowed its way into prominence in the expanding field of missile development. It did so despite sustained opposition from elsewhere in the Defense Department.

To secure its niche, the Army vigorously pursued each of these potential uses of missiles. As a result, the Army really operated three missile programs: **space exploration**, in particular the effort to orbit an artificial satellite; **air defense**, including surface-to-air missiles (SAMs), and **tactical surface-to-surface missiles** (SSMs). Despite the space exploration program's implications for national security, the Army's primary interest was public relations. By demonstrating its leadership in space research to a fascinated public the Army could both garner support for a role in military missile development, and go far toward shedding its image as technically the most backward of the Services. During the Eisenhower years the Army luxuriated in its ability to throw missiles farther and more accurately than anyone else—as with the 3,000-mile *Redstone* shot of September 1956. The Service basked in the publicity that it gained from solving technical problems such as "nosecone reentry," however remote they might be from tactical requirements. And ultimately, of course, the Army salvaged the country's pride when its *Explorer I* achieved orbit as the first American satellite in January 1958, four months after *Sputnik I*. We may doubt whether such successes really affected the popular view of the Army as an institution, or whether the public instead credited them to the ex-German scientists who happened to work for the military. Without question, however, such accomplishments demonstrated that the competence of the Army's missile team was without equal in the United States.

No less important than these initial steps toward outer space was the question of **air defense.** From its earliest days in office, the Eisenhower administration showed an acute sensitivity to the Soviet bomber threat. An assessment adopted by the NSC on 22 July 1953, for example, declared that existing defenses were "not now adequate either to prevent, neutralize, or seriously deter" Soviet attacks against the continental United States. The report further declared that "this condition constitutes an unacceptable risk to our nation's survival."[5] The risk was double-edged: Soviet bombers jeopardized American cities, and threatened SAC bases housing US nuclear retaliatory forces. Fears that Soviet bombers thus reduced the credibility of massive retaliation persuaded the administration that continental defenses were essential and generated support even among budget cutters for their improvement.

The Army and the Air Force both recognized the opportunities inherent in this growing interest in continental defense. While including passive steps, such as building shelters, hardening industrial plants, and dispersing SAC bombers, continental defense focused primarily on active measures—such as destroying an attacker before he could drop his bombs. Assured of widespread support in and out of government, the continental air defense mission would involve a formidable investment of people and equipment, involving a sizable slice of the defense budget. A role in air defense, moreover, could allow the Army to lay claim to its own distinct and unassailable contribution to deterrence, "proving" its relevance to skeptics who questioned its role in an era of massive retaliation. In this sense, air defense offered a hedge against the Army's bet that it eventually would demonstrate its continued utility as a ground combat force.

To which Service did the mission rightfully belong? Despite Army attempts to depict continental air defense as a logical extension of its old role in coastal defense, the Key West agreement of 1948 had answered that question, explicitly assigning the mission to the Air Force. Yet the agreement also stated that a "primary function" of the Army was to organize, train, and equip air defense units.[6] The distinction between one's Service mission and another's primary function was a fine one that the agreement did little to explain. Were Army air defense units to protect the continental United States? Or were they merely intended to defend the army in the field? The Key West agreement shed no light on those questions. In the following years the Army used this ambiguity to advance the thesis that while the Air Force might rightfully claim all interceptor aircraft, the Army was the proponent for all ground-based antiair systems.

This claim, combined with the Army's technological lead in developing antiaircraft weapon systems, provided the rationale for the Army's massive continental air defense program of the 1950s. This program envisioned the activation of 150 air defense battalions deployed to protect major American cities from New York to San Francisco. Initially, these battalions featured automatic cannon, the most modern being the radar-directed

Skysweeper. Reflecting the trend toward missiles, however, the Army launched an effort to convert all its high-altitude air defenses to surface-to-air missiles (SAMs).

By 1954 the first results of this effort appeared with the fielding of *NIKE Ajax*, winner of a sharp competition with the Air Force's *Bomarc*. Although the Army quickly purchased some 10,000 *Ajax* missiles, the limited 25-mile range and puny conventional warhead of the *Ajax* just as quickly made it obsolescent.[7] By 1956, the Army already had plunged into developing a replacement, *NIKE Hercules*, a missile that offered both longer range and a nuclear warhead.

At this point, the Air Force attempted to disrupt the relatively smooth progress of the Army's SAM program. To defend its own bases across the country, the Air Force announced that it would acquire *Talos*—a Navy missile then only in the preliminary stages of development—and would bypass *Ajax* completely. The Air Force explained this decision in terms of *Ajax*'s shortcomings, which it asserted were great. "Air Force Calls Army Nike Unfit to Guard Nation," proclaimed one headline in *The New York Times*.[8] The Air Force openly questioned the adequacy of the test program used to evaluate *Ajax*. It mocked the Army's attempts to demonstrate the missile's effectiveness by showing over and over again film footage of *Ajax* knocking down a "war-weary" B-17.[9] Soviet bombers would be a great deal more elusive, the Air Force contended, and a missile with the range and altitude limitations of *Ajax* would have difficulty hitting them before they

US Army Photo

A NIKE missile guards America in 1957. Chicago's Loop is in the background. Such air defense programs offered a hedge against the Army's bet that it eventually would demonstrate its continued utility as a ground combat force.

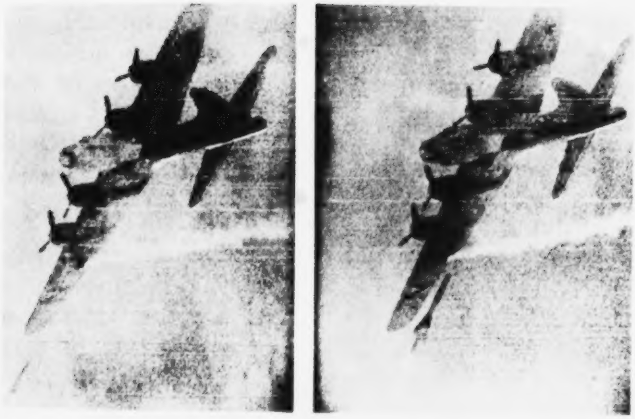
reached their bomb release point. Nor did the Air Force believe that *Hercules* would be much of an improvement.

The real issue was not which SAM should protect Air Force bases. Rather, it was which Service should control SAMs. Air Force leaders resented the way that "the Army [had] stuck a foot ... into the door of the air defense mission and in a short time got in all the way." They were convinced that the Army's objective was to "take over all missile defenses and thereby wind up with an honest-to-goodness air defense mission," in effect overturning the Key West agreement.[10] By calling into public question the Army's ability to protect the country from nuclear attack, the Air Force hoped to break its rival's monopoly on SAMs.

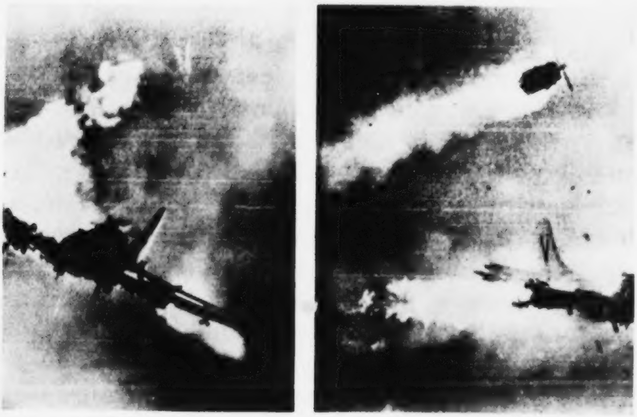
By 1956 the *Nike-Talos* competition had flared into vituperative controversy that was an embarrassment to the Eisenhower administration. Ending the dispute required the direct intervention of Secretary Wilson. In November 1956 Wilson attempted to settle the issue by amending the Key West agreement in a way distinctly favoring the Army. Wilson directed that, henceforth, in air defense the Army would have exclusive jurisdiction over *all* "point defense" weapons. This jurisdiction would include all SAMs with ranges up to 100 miles, a category encompassing both *Nike* **and** *Talos*. By way of consolation,Wilson conceded to the Air Force a nebulous "area defense" mission along with SAMs of greater than 100 mile range, none of which currently existed.[11]

Wilson's directive killed Air Force aspirations to control its own SAMs. For the Army, the directive meant a confirmation of its SAM monopoly. The Service energetically pushed ahead with plans to phase out *Ajax*. By 1960, out of 26 existing NIKE batteries 92 had been re-equipped with *Hercules*. Development of yet two more missiles—the medium altitude *Hawk* and antiballistic missile *NIKE-Zeus*—was well underway. The Army's success in usurping a major portion of the air defense mission was complete.

In the Army's three-pronged missile program, only the development of tactical



A NIKE missile knocks down a B-17 drone.
US Army Photos



surface-to-surface missiles (SSMs) contributed directly to its effort to adapt land power to an atomic battlefield. Even this apparently justifiable effort became the subject of bitter inter-Service rivalry. For in defining its SSM requirements, the Army used such an expansive concept of the tactical battlefield as to collide with cherished Air Force prerogatives.

The search for ways to apply nuclear weapons to the land battle actually predated the Korean War. Development of atomic artillery had begun shortly after World War II with efforts concentrating on producing a nuclear round for an existing 280-mm gun that the Army had developed on an experimental basis. Though shrouding its early efforts in secrecy, the Army began publicizing the program as the Eisenhower administration took office. The 280-mm gun figured prominently in Ike's inaugural parade. And in May 1953 it became the first artillery piece to fire a nuclear round successfully. Within months the Army had deployed a half-dozen of these monster-cannon to Europe to provide nuclear fire support for NATO.

This achievement was astonishing. Yet the 280-mm atomic gun was absurdly obsolete as soon as it arrived in the field. It possessed **none** of the qualities that the Army deemed necessary for the new battlefield of the 1950s. Its limited 17-mile range gave it precious little capability to reach worthwhile targets. Commanders would have to place the cannon precariously near the line of contact for it to have any use at all. The further forward the cannon was deployed, the more vulnerable it would become to an enemy who would surely spare

US Army Photo

The Army shows off its new NIKE Ajax missile during an Armed Forces Day program in 1954. Ajax was a winner in competition with the Air Force's Bomarc in 1954, but its limited range and puny warhead quickly made Ajax obsolete.

no effort to eliminate US nuclear artillery. The mere possession of such a weapon would impose heavy security requirements on the local ground commander, hampering his ability to deal freely with the enemy. As for mobility, the weapon had severe deficiencies. Weighing 83 tons, it was not transportable by even the largest aircraft. On the ground, two tractors were required to move the cannon on its carriage, one pushing and the other pulling. Even then, the cannon remained roadbound, cumbersome, and slow moving.

Although impressive as a technological breakthrough, the 280-mm cannon failed to meet the Army's requirements for a tactical atomic delivery system. Commanders needed a weapon that would pack an atomic punch, but that would be light, mobile, and able to reach targets deep in the enemy's rear. To a degree, the Army could meet these requirements by making smaller artillery nuclear capable. The 8-inch gun and 155-mm howitzer at least offered the advantage of being able to move quickly. And so the Army began developing nuclear rounds for these weapons. But all artillery retained range limitations. Their potential for greater range made SSMs an appealing—and seemingly necessary—alternative.

In retrospect, the Army's SSM program of the 1950s is striking both for the variety of systems developed—with one variant replacing another with startling rapidity—and for the spectrum of capabilities they encompassed. Such a variety of systems accurately reflected the Army's views of its SSM requirements. As the pertinent Army Regulation stated, "the ground commander must be capable of delivering atomic weapons from missiles of a wide variety of ranges and uses." The regulation specified that the Army's family of missiles had to include "short-range," "medium-range," and "long-range" models.[12]

US Army Photo

The 280-mm atomic cannon in action in May 1953. It figured prominently in President Eisenhower's inaugural parade and was the first artillery piece to fire a nuclear round successfully. Yet it was obsolete as soon as it arrived in the field.

What did such generalizations actually mean? Was the 75-mile range *Corporal* (which in 1953 became the Army's first operational missile) a medium-range or long-range weapon? If the Army categorized *Corporal* in the medium band, what did it mean by long-range? How the Army chose to answer these questions concerned the Air Force in particular.

As the Air Force saw it, the Army SSM program threatened to usurp missions that rightfully were the Air Force's. Citing the 1948 Key West agreement, the Air Force claimed sole responsibility for all combat occurring more than 50 miles into the enemy's rear. Even assuming a launch from positions a safe distance behind friendly lines, *Corporal* would reach the outer margins of the battle area allowed to the Army at Key West.[13]

Corporal was a portent of things to come—to the Air Force a threat, to the Army a promise. In terms of range alone, it marked a vast improvement over the 280-mm gun. But *Corporal* had offsetting shortcomings of its own: it was an unwieldly 46-feet long and liquid-fueled; and it required an awkward repositioning from its carrier before launch. *Corporal* also lacked the responsiveness to provide truly effective support. Like the 280-mm gun, *Corporal* provided no more than an interim solution.

From *Corporal*, Army SSM development proceeded in two directions: on the one hand, toward smaller, more flexible systems designed to provide responsible atomic fire to the lowest possible

US Army Photo

The 280-mm atomic cannon prepared for movement.

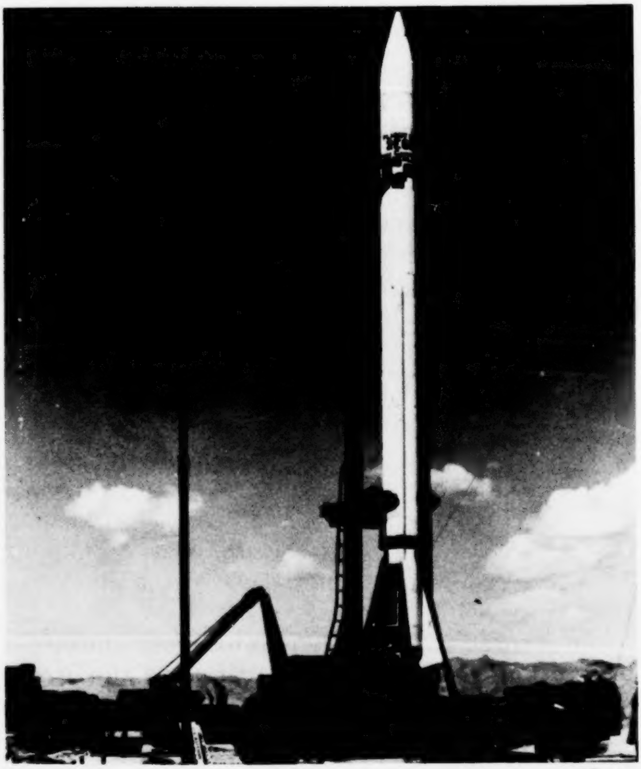
echelon; and, on the other hand, toward long-range missiles that reached far beyond the traditional area of concern of even the most senior ground commander.

Following its success with *Corporal*, the Army developed *Redstone*, a liquid-fueled missile that carried an atomic warhead and was capable of ranges up to 240 miles. The Army launched the first *Redstone* prototype in May 1953 and by 1956 already had formed the first operational unit—the 40th Field Artillery Missile Group—at Redstone Arsenal, Alabama. Simultaneously, the Army began crash development of an intermediate-range ballistic missile (IRBM), the *Jupiter*. The Army completed a successful 1,500-mile test shot with the *Jupiter* missile in May 1957, apparently putting it well ahead in its competition with the Air Force to field the first IRBM.

Even conceding the Army's view that the battles of the next war would involve fighting to far greater depths, a weapon with a 1,500-mile range seemed to exceed even the broadest definition of the ground battle. Publicly, the Army justified its long-range missiles in two ways. It argued that ground commanders needed immediately at hand the means to strike targets well in the enemy's rear. Moreover, the Army claimed that World War II and Korea had demonstrated that it could not rely on the Air Force to hit such targets. The Air Force's preoccupation with heavy bombers and supersonic fighters suggested that the future would be no better. As Taylor told a conference of senior Army commanders in 1956:

> We haven't had close effective tactical air support; we cannot expect to have it in the future. The high-performance Air Force planes are flying away from us; they have left the battlefield[14]

Besides being ill designed for requirements of tactical air support, Air Force aircraft also were incapable of flying in all conditions. According to Major General Holger N. Toftoy, Redstone Arsenal's commander, experience showed that "tactical support aircraft were too often hampered by adverse weather; they were not the answer." What the Army needed was all-weather fire support "which can be



US Army Photo

An Army *Corporal* missile being readied for firing in 1954. *Corporal* was a portent of things to come: a promise for the Army, a threat to the Air Force.

used effectively, day or night, and without airsuperiority, and against which there are no known countermeasures." Such, concluded General Toftoy, was "the reasoning behind the Army's expanding guided missile program."[15]

In terms of missions and claims on the defense budget, however, the Army's acquisition of long-range missiles would occur at Air Force expense. Despite the Air Force's comparative robustness throughout the post-Korea era, that Service had no intention of allowing the Army anything that even resembled a strategic weapon. Successful Army missile initiatives could undercut the rationale for Air Force bomber or missile programs. Thus, the Air Force was determined that if the United States needed an IRBM, it would be its own candidate, *Thor*.

Occurring at the same time as the feuding over SAMs, the *Thor-Jupiter* controversy also came to rest on Secretary Wilson's desk. Wilson's attempt in November 1956 to untangle the *Nike-Talos* dispute also contained guidance on IRBMs. In this instance, however, Wilson ruled against the Army, giving the Air Force sole jurisdiction over IRBM employment. The Army could continue to develop *Jupiter*, but when fielded the missile would come under Air Force control. Wilson also directed the Army henceforth to restrict its SSMs to missiles with ranges less than 20 miles. All SSMs with greater ranges would belong to the Air Force.[16]

Observers interpreted the Wilson memorandum as a clear-cut victory for the Air Force. In depriving the Army of *Jupiter*, it was. But Army leaders reacted to Wilson's ruling in the spirit of the folk wisdom then current in the Pentagon: "Nothing is complete, neither victory nor defeat."[17] From this

US Army Photo

Launch crews train with a *Redstone* missile in Germany in 1956. *Redstone* was liquid-fueled and could carry an atomic warhead to ranges up to 240 miles.

perspective, Wilson's order was only a temporary setback. When Neil H. McElroy succeeded Wilson in late 1957 the Army petitioned for a modest exemption to begin "limited feasibility studies" on a new missile in the 500-mile category. McElroy granted this request. Armed with this narrow charter, the Army raced from mere studies into full-scale development, building irresistible momentum for the missile that would be fielded as the *Pershing*. Indeed, the Army chose to interpret McElroy's action as all but reversing Wilson's directive. As Secretary Brucker subsequently told Congress:

> With that relaxation [by McElroy], I think we have enough encouragement, or a beckoning on the part of the Secretary of Defense, to indicate our requirements if we get other missiles or breakthroughs or things that we want. I would feel, for one, perfectly free to go back to him and say, "Look, we have had this exception to that order, and although I was against the order in the first place, I feel that now another exception should be made ... similar to the Pershing.[18]

Nearly buried in Brucker's tangled syntax was both a reassertion of the Army's prerogative to develop long-range missiles and a promise to define that prerogative however the Army wished. In decades ahead, that definition would be a broad one.

While bureaucratic "turf battles" raged over which Service would control intermediate-range missiles, the Army's fielding of short-range missiles progressed with far less controversy. In some respects, the Army appeared to view smaller SSMs less as complementing longer-range missiles than as providing an alternative to them. For the Army to sponsor a weapon with a range of more than 1,000 miles was at best marginally relevant to its efforts to preserve a traditional land force. Such weapons could make little immediate contribution to the

Willbur M. Brucker was Secretary of the Army during most of the Eisenhower era. He reasserted the Army's prerogative to develop long-range missiles, and promised to define that prerogative however the Army wished.
US Army Photo

land battle. Indeed, even to consider using them in that role was folly. Army leaders such as General Taylor concluded that such weapons were too destructive and too inaccurate to be used in proximity to friendly forces or noncombatants. "The more one reflects upon the use of atomic weapons in limited war situations," he told students at the Army War College,

> the more one is impressed with the limitations which we would want to impose upon their employment. The so-called tactical weapons are small only by comparison to the megaton yields of the so-called strategic weapons. They are highly destructive to friendly peoples and friendly countries.[19]

Exercises and war games suggested that the use of large-yield weapons would cause widespread casualties among friendly troops. The new Army that leaders such as Taylor sought was not simply a conventional force with a few oversized nuclear-tipped missiles tacked on as an afterthought. Instead, these new leaders wanted an Army that had integrated nuclear capabilities into all of its operations. Achieving this capability would require vastly smaller and much more accurate weapons.

By the time Taylor spoke, efforts to develop such weapons had been underway for some time. First came *Honest John*, initially fielded in 1954. Fueled by solid propellant and launched directly from its truck carrier, *Honest John* achieved major advances in responsiveness. Its 22-mile range, although only a fraction of that of *Corporal*, was at least greater than that of the 280-mm gun. But *Honest John* was a free rocket rather than a guided missile, and thus its accuracy left much to be desired. Of greater concern, its launch weight exceeded three tons. *Honest John* was too heavy to airlift around the battlefield as post-Korea concepts of mobility demanded. So in 1956 the Army began developing *Little John*, another solid propellant free rocket, with a range of only 10 miles, but launched from a small trailer and light enough to be carried by helicopter. *Little John* was a division commander's weapon.

US Army Photo

Rotarians from Lawton, Oklahoma, learn about the Army's *Honest John* rocket in 1957. *Honest John* was fielded in 1954 and its 22-mile range was greater than that of the 280-mm atomic gun. *Honest John* was fueled by solid propellant and was launched directly from its truck carrier.

The Army next went a step further to provide nuclear capability to the battalion commander engaged in the direct-fire war. This next step was *Davy Crockett*. Though not fielded until 1961, *Davy Crockett* began development when the Army's nuclear enthusiasm was at its height. It was a 150-pound rocket that looked like a large mortar and lofted a miniature atomic warhead to a range of only a mile and a quarter. The initial intent was to provide a man-packed version of *Davy Crockett* to infantry battalions. But the Army also sketched out plans to adapt the weapon to a variety of delivery systems—tanks, light armored vehicles, drones, and a hybrid aircraft called a "flying jeep."[20] Such proliferation of nuclear weapons—their integration into virtually all echelons, and the emphasis given to the role they would play—would make it almost inevitable that in combat against a first-class opponent, the Army would resort to their use at an early hour. Only a few soldiers in the 1950s questioned the wisdom of thus mortgaging the Army's success to its use of nuclear weapons.

Viewed on its own terms, the army's missile effort, even a quarter of a century later, remains a remarkable achievement. The Army made exciting contributions to the fledgling American space program. The strides made with both SSMs and SAMs in a few short years were impressive. The Service's leadership, even dominance, in this field provides a useful corrective to the image of a forlorn Army shorn of prestige and clout in Eisenhower's Washington.

From another perspective, however, the Army missile program merits fewer plaudits. The Army in the 1950s was like an aging corporation challenged to modernize or face extinction. The missile program let the Army off the hook. Missiles meant diversification: they helped preserve the firm. But in doing so, they absorbed resources and talent that might otherwise have gone to solving nettlesome

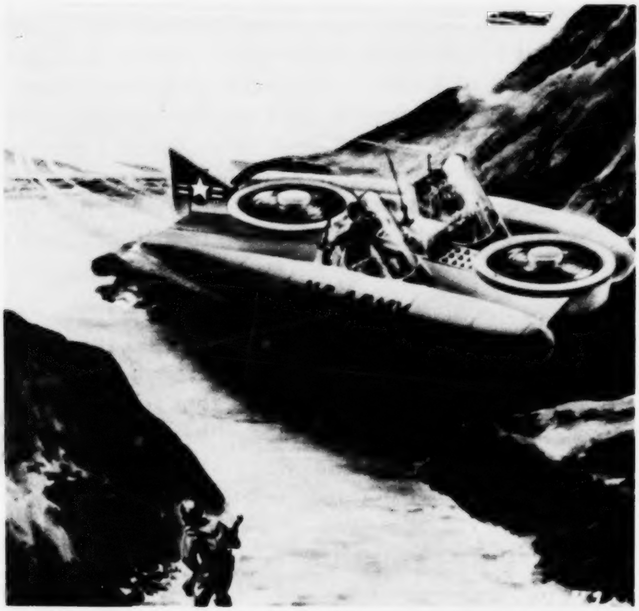
US Army Photo

An Army H-34 Choctaw helicopter carries an Army *Little John* rocket in 1960. *Little John* was a mobile missile, a solid propellant free rocket, with a range of 10 miles; it was designed as a division commander's weapon.

questions more closely related to the Army's central purpose.

That this view especially was true in the case of missiles for continental air defense occurred to Service leaders even then. In 1954, when newspapers quoted two junior officers as saying that the Army was interested only in air defense weapons that would accompany field armies into combat, General Lemnitzer fired off a letter to their commander, warning him that such statements were "seriously damaging the Army's prestige and interests. *Whether we like it or not*," he added, "the Army has an important role to play in continental defense ..."[21] Two years later, Taylor admitted that he was "not happy about how much money we're spending" on continental defense, a mission he described as "fixed and ... stagnant." Developing air defense missiles, continued Taylor, "costs lots of money and it's not good for the Army ..."[22]

The suggestion would be unfair that, in lavishing such attention on the secondary mission of air defense, the Army was abdicating responsibility for the land battle. Yet taken as a whole the Army missile program reflects a preoccupation with an excessively narrow concept of war—despite the Service's **theoretical** appreciation for a broader spectrum of conflict. This enormous investment in missile development shows that in practice the Army assumed that atomic weapons **would** be used in any future war and **would** determine its outcome. Given this assumption, American soldiers came to view modernization as synonymous with finding ways to apply atomic weapons to battle. With missiles absorbing a disproportionate share of the Service's research and procurement dollars,



Artist's conception of the Army's planned "flying jeep," a hybrid aircraft seen as a delivery system for *Davy Crockett*.

little remained for non-nuclear combat. As Taylor acknowledged in 1959, "the big money has gone for the weapons which are limited in employment to general war situations."[23]

Consequently, a pronounced unevenness marked the Army's modernization effort after Korea. While the Service made great strides in developing nuclear delivery systems and weapons to shoot down strategic bombers, elsewhere modernization proceeded on half-rations. As General Gavin told the Congress in 1957, "because of the need to support the big ballistic missile program . . . we have had to cut back on the other things such as a new family of tanks."[24] Research and development (R&D) allocations for FY 1957 put Gavin's comment into perspective. In that year, more than 43 percent of the Army's R&D effort went to missiles and nuclear weapons. By comparison, only 4.5 percent went to new vehicles, 4.3 percent to artillery, and 4 percent to aircraft.[25]

This imbalance in investment meant that apart from missile advances already described the Army made only slow progress toward reequipping itself, under the imperatives of combat that it proclaimed to be so important. Again and again Service leaders announced that, henceforth, with the Army's emphasis on strategic mobility "equipment **not** capable of air transportation will be the exception."[26] But the reality was quite different. The Army fielded very few air-transportable systems, and those that did appear, such as a miniature truck (nicknamed the Army Mule) and the M56 90-mm selfpropelled antitank gun, were not notably successful.

Mechanized forces fared no better. As General Gavin's remark implied, improvements in tank design in the 1950s occurred in barely noticeable increments. The mechanization of infantry—supposedly necessary to allow foot soldiers to survive and operate on a nuclear battlefield—made little progress. The Army' T113 armored personnel carrier (APC) spent most of the 1950s in development and still had not been fully fielded when the decade ended. As an officer commented, "despite a greatly revised organization and tactical doctrine, combat units as usual are trying to do with the same old equipment until the new gear

US Army Photo

A US Army sergeant prepares *Davy Crockett* for firing. *Davy Crockett* was a 150-pound rocket that looked like a large mortar and lofted a miniature atomic warhead to a range of only a mile and a quarter.

arrives."[27] One hardly can avoid concluding that had the Army spent less money on nuclear-tipped missiles, the new gear would have arrived much sooner.

5. Reorganizing: The Pentomic Concept

As we have seen, investment decisions favoring missiles in the post-Korea era meant that hardware more directly related to the land battle received short shrift. By emphasizing programs most conducive to congressional and popular support—space exploration, high altitude air defense, and IRBMs—the Army allowed its needs for improved conventional equipment to go unfulfilled. As a result, when the Eisenhower era ended in 1961, veterans of Korea or even World War II would have found most of the equipment in the Army's inventory quite familiar. Apart from missiles and to a lesser degree aircraft, equipment modernization in the post-Korea era proceeded at a snail's pace

Surprisingly, the Army's determination to develop combat units with greater depth, mobility, and flexibility survived despite the poor progress made toward fielding new equipment. Throughout the post-Korea era, the Army pushed ahead with efforts to reorganize its divisions consistent with the new imperatives of combat, and to develop tactics appropriate to either a nuclear or non-nuclear battlefield.

The importance of dispersing to improve survivability against nuclear weapons exercised the greatest influence on the structure of this new organization. Dispersion meant that units within a division necessarily would fight with greater autonomy than they would have in earlier wars. On the deep and fluid battlefield that Army theorists envisioned units would find themselves on their own—seldom tied in with friendly units on their flanks, unable to count on higher echelons to assist with either direction or materiel. Such circumstances would require maneuver units that were self-contained and self-sustaining.

Combat units employed during World War II and Korea did not possess those qualities. The regiments comprising the traditional division seemed too bulky and too dependent on support from elsewhere in the division for their operational effectiveness. In such a division even a minor wound to the head threatened to paralyze all of the limbs. Leaders such as General Gavin believed that in an atomic age a combat unit should be like "an amorphous biological cell."[1] Even severe damage to one part of a division composed of many cellular components would not preclude the rest from fighting on.

Determining the size of these cells was critical. Reinforcing the traditional infantry regiment with combat support (artillery and engineers) and service support (signal and logistics) would give it the heft to fight independently. But experience suggested that such a reinforced regiment would lack quickness and flexibility. More importantly, such a conglomeration would constitute an attractive nuclear target, the loss of which would render the division all but ineffective. The problem, according to General Gavin, was "to dissolve the [existing] organization down to the size of units you are not afraid of losing to one [nuclear] blast."[2]

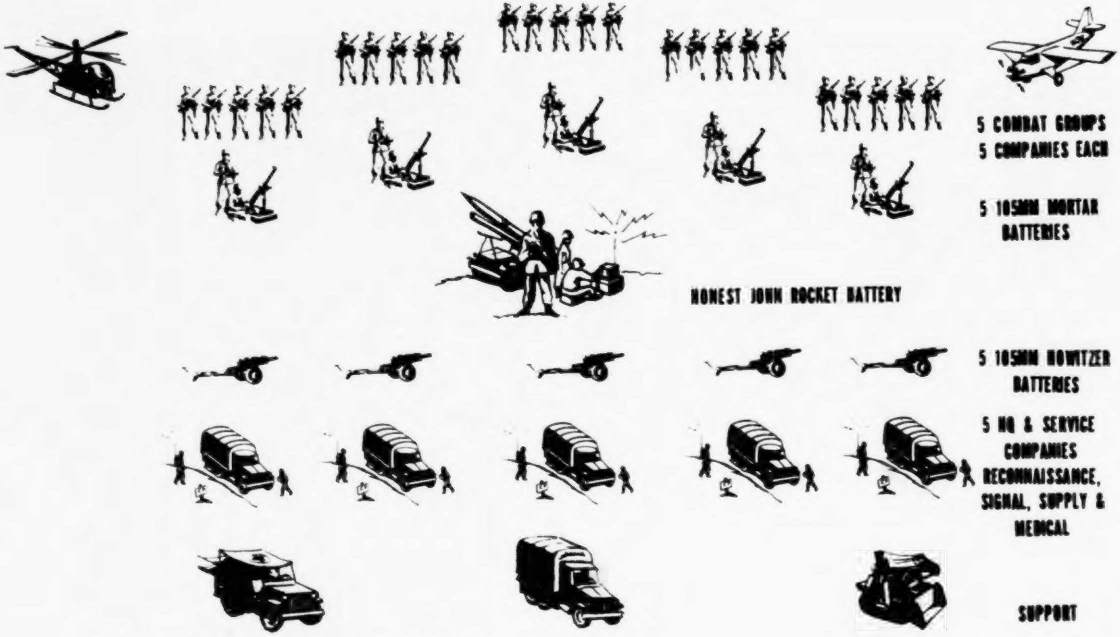
To Gavin and others the echelon that satisfied the criteria of being large enough to fight independently but small enough to be expendable was the battalion. But the battalion that the Army developed as the building block of its new division differed from its Korean War-vintage predecessor, so much so that the Army gave it a new name: **battle group**.

The battle group's design was intended to be more pliable and sustainable than traditional battalions. Pliability came from providing each battle group with five companies, with each company in turn having five platoons. The Army hoped that with a greater number of units at his disposal a commander would have more options for deploying forces in depth or for disposing them to fight in all directions on a "non-linear" battlefield.

Sustainability came from permanently assigning additional support assets. Each battle group had a headquarters and service company providing extensive reconnaissance, signal, maintenance, and medical support. Each battle group also had its own heavy mortar battery. While artillery formally remained a division asset, its organization into five separate units lent itself to semi-permanent distribution among each of the division's five battle groups.[3]

Emphasizing the ubiquitous recurrence of the number five and the organization's intended employment in atomic war, the Army christened this new structure the Pentomic Division. (See figure 2.) In practice, Pentomic units came in three types: airborne, infantry, and armored. Of the three, the airborne division most deserves examination. It served as the prototype of the Pentomic organization when the 101st Airborne Division converted to that configuration in the fall of 1956. In addition, given the pervasive influence of the so-called "Airborne Club" within the Army's senior leadership in the 1950s, the new airborne division received the most sympathetic attention and most clearly illustrates the intent of the Pentomic concept.[4]

The Pentomic airborne division represented a striking departure from its predecessor. By combining the functions of the regiment and the battalion in the new battle group, the division eliminated a complete command echelon. Its pattern of five subordinate elements at each remaining echelon greatly increased demands on commanders. To be sure, with its battle groups and support elements fully air transportable, the airborne division alone met the Army's stiff criterion for strategic mobility. But in doing so it sacrificed tanks, armored personnel carriers, and cannon artillery heavier than 105-mm. At the upper end of the scale, the new


5 COMBAT GROUPS
5 COMPANIES EACH
5 105MM MORTAR BATTERIES
HONEST JOHN ROCKET BATTERY
5 105MM HOWITZER BATTERIES
5 HQ & SERVICE COMPANIES RECONNAISSANCE, SIGNAL, SUPPLY & MEDICAL
SUPPORT

Source: Annual Report of the Secretary of Defense for Fiscal Year 1956

Figure 2. The Pentomic Division

division compensated for this lack of heavy weapons with *Honest John* rockets for nuclear fire support and unarmored 90-mm and 106-mm antitank weapons. At the scale's lower end was a substantial increase in light crew-served weapons, such as mortars and machine guns. The number of helicopters increased, too, from 10 to 37, an attempt to offset a reduction in wheeled vehicles. The total number of assigned soldiers dropped from slightly more than 17,000 in the old division to 11,486 in the new.[5] The division possessed only a thin logistics base, but the Army downplayed this potential weakness with promises of "new logistical support systems and procedures."[6]

The real question was how the Pentomic division would fight. For tactics, even more than organization, reveals the essence—and shortcomings—of the Pentomic experiment.

For offensive operations, the Army developed tactics notable for their transparent simplicity. As the Army saw it, flanking maneuvers that classically had described the acme of offensive operations would lose their relevance on future battlefields. Henceforth, penetration would become the predominant mode of attack. But it was penetration with a difference. As two Army theorists postulated, the "frontal assault, always tempting as the most direct route to the enemy's vitals, would henceforth become the cheapest route after atomic weapons open the way."[7] Rather than the attacker pushing through the enemy's defenses, nuclear fires would blast a gap through the enemy front before movement on the ground even began. Swiftly concentrated maneuver units then would follow, dashing through the gap to perform "the technical tasks and finishing touches" of the attack as they rolled unimpeded into the enemy's rear.[8]

These advancing ground forces would deploy not for heavy fighting—the initial nuclear preparation having made that unnecessary—but for exploitation. The tactical requirements were tight control and rapid movement. With this aspect in mind, units would attack in column. Such a formation accommodated high-speed movement and also facilitated security since the shaken enemy would have difficulty fixing the attacker's fast-moving spearhead. While such a narrow array could bring little firepower immediately to bear, the Army did not see this lack as a serious impediment.[9]

Army leaders billed their new offensive doctrine as a revolutionary departure. But was it? Granted, a Rommel or Guderian* hardly would have recognized it as maneuver warfare. But an earlier generation of British and French staff officers from World War I would have grasped its essentials immediately. Its principal aspect mirrored the approach they had unflinchingly pursued through years of deadlocked trench warfare in France: a stubborn faith in the ability of fires to shatter prepared defenses; a belief that preliminary bombardments reduced the attacker's role to securing by rapid, controlled advances the gain that fires had made possible; and a consequent attempt to improve responsiveness and control by simplifying tactics—attacking straight ahead, using stereotyped formations, and de-emphasizing factors such as deception or surprise that complicate an operation.

***Erwin Rommel**, German field marshal, brilliantly commanded an armored division in the attack on France in 1940; in February 1941 he took the specially trained tank corps, the Afrika Korps, into Libya. For his success there, he earned the name "the desert fox." **Heinz Guderian**, German general, was commander in chief of armored units against Poland, 1939, France, 1940, and Russia, 1941.

Army leaders in the 1950s did not acknowledge any similarities between their thinking and discredited offensive doctrines of World War I. They believed that nuclear weapons made all the difference. A few well-placed tactical warheads would accomplish what millions of shells fired over periods of days or weeks had failed to do in World War I. Armed with this faith in nuclear firepower, the Army believed the only question to be the technical one of learning how to pass exploitation forces through an area scorched by nuclear fires.

By the middle of 1955 the Army tried to demonstrate that it had answered even that question during a series of nuclear tests designed to illustrate its new tactics. The most important was a well-publicized operation called *Desert Rock VI* conducted at Yucca Flat, Nevada, and involving a composite armored force, *Task Force Razor*, positioned 3,000 meters (about two miles) from a 30-kiloton (30,000 tons of TNT) atomic device. When the device was detonated a choking dust and terrifying flash of light instantly filled the vehicles nearest to ground zero. But neither vehicles nor crews appeared to suffer any adverse effects. Within a half-minute *Task Force Razor* had opened fire with its tank cannon and machine guns. Within

US Army Photo

US Army soldiers from a composite armored force, *Task Force Razor,* took part in Operation Desert Rock VI at Yucca Flat, Nevada, in 1955. The troops were positioned 3,000 meters (almost two miles) from ground zero for the detonation of a 30-kiloton atomic device (equivalent to 30,000 tons of TNT). Neither vehicles nor crews appeared to suffer any adverse effects from the explosion.

three minutes communication had been established. And eight minutes after the blast, *Task Force Razor* was advancing toward its objective, skirting within 900 meters of ground zero, even as a mushroom cloud billowed 40,000 feet above the desert floor.[10]

It was a great show, impressing the corps of news reporters on hand for the occasion. Only a few of those present noted the test's sterile laboratory-like conditions. Three times the Army had postponed the test while waiting for just the right weather conditions. The featureless desert, ideal terrain for armor, was not a duplication of the forested hills, rivers, and urban complexes of Western Europe. The activities of *Task Force Razor*—itself hardly representative of an Army in which dismounted infantry still predominated—left much to be desired as a tactical exercise. A classified Army after-action report called the exercise "an unrealistic maneuver," devoid of tactical authenticity. Days had been spent positioning each armored vehicle, an undertaking which the Army report acknowledged would be "impossible in a combat situation." To prepare for the detonation, the task force had assumed an administrative posture, making itself completely vulnerable to enemy action for 30 minutes prior to H-hour. Radios and engines were turned off, turrets rotated to the rear, sight apertures sealed with tape, and all crews "buttoned up" inside their vehicles. *Task Force Razor* could not see, move, or shoot; communications were possible only through a specially rigged network of telephones linking each vehicle.

After the detonation the task force had advanced in a tight wedge formation to facilitate control—with every vehicle monitoring a single radio frequency and many turning on their lights to help in keeping station through the heavy dust thrown up by the blast. The Army had calibrated the shot to minimize any radiation hazard, hoping thereby to permit the armor to attack directly across ground zero. As it turned out, however, that when the lead elements reached a point 890 meters (a little over a half mile) from ground zero the radiation level inside the tanks had reached 10 roentgens per hour, forcing the commander to order a 90-degree turn away from his assigned objective. The otherwise thorough Army report did not explore the implications of having to exclude from any participation in the exercise the more than 100 wheeled vehicles on which *Task Force Razor* relied for reconaissance, medical evacuation, resupply, and maintenance support.[11]

The Army staged exercises such as *Desert Rock VI* to convince outsiders of the compatability of ground forces and nuclear weapons. As the after-action report of a subsequent test noted, in putting together such exercises, "planning proceeded from the basic decision that first priority be given to demonstrating the Army at its best." The report went on to note that only "secondary consideration was . . . given to achieving such test and evaluation as could be effected."[12] But the exercise agenda encompassed more than generating propaganda about the survivability of equipment exposed to nuclear shocks or the trafficability of terrain after a nuclear explosion. To put to rest fears about the effects of a "friendly" nuclear blast on nearby troops, the tests had to involve actual units with real soldiers. The Army used the results of exercises such as *Desert Rock VI* to publicize reassuring conclusions about the effect of radiation and fallout.

For instance, an Army physician, writing after *Desert Rock VI*, admonished soldiers for their "bugaboo of radiation," a fear that he believed was based not on fact but on an irrational "fear of sterility." The effects of radiation, he claimed, generally did not extend beyond 1,500 meters (a mile) from ground zero. In predicting the effects of nuclear weapons, therefore, "radiation casualties are not important in numbers." Anyway, he took comfort from the fact that even victims of a 700-rad dose* would not require "any significant attention" for at least a week after exposure.[13] In a similar vein, General Wyman declared in 1958 that the problem of radiation had "already been solved by science." Sanitizing nuclear weapons not only made them "adaptive to a much wider variety of situations on the battlefield," but made their employment "more likely in view of the reduced danger to the civilian population of the areas involved."[14]

Observers in a decade more sensitized to the prospective horrors of nuclear weapons may find unconvincing such optimism about the ease with which soldiers and civilians will survive their effects. But if the Army's new offensive doctrine

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*Rad (from *RA*diation *A*bsorbed *D*ose) is the unit of absorbed dose of ionizing radiation (X-rays, for example) equal to the amount of radiation that releases an energy of 100 ergs per gram of matter. The rad is used to measure the effect of radiation on living soft tissue.

lacked both an awareness of history and a sense of realism, the concepts developed for defending on an atomic battlefield were even more eccentric.

In 1956 Colonel Henry E. Kelly published an article entitled "Dig That Atomic Foxhole" that contained detailed guidance on how to do it.[15] Although Colonel Kelly's brief piece had no discernible impact, its concreteness and specificity made it almost unique among Army writings that discussed how to defend in the 1950s. For in designing concepts for use against a nuclear-equipped attacker, the Army pursued its obsessive concern with dispersion to its logical conclusion. The result was a doctrine that signalled a virtual abandonment of traditional precepts.

Army leaders reasoned that the need to avoid concentrating friendly troops had made linear defenses obsolete. The threat of the enemy's nuclear weapons no longer would permit forces to defend along a single thickened front with units carefully tied in on their flanks. Such a daisy-chain defense would be identifiable, targetable, and easily destroyed. Considerations of security therefore demanded that units spread themselves in great depth. Yet prescribing dispersion raised its own problems: how could dispersed forces muster the combat power to stop an attacker?

The concept that eventually emerged was area defense. In its simplest terms, this tactic consisted of establishing what General Wyman called "small islands of resistance widely separated over the most favorable terrain."[16] Each island was a battle group situated on key terrain, organized into a defensive perimeter, and fighting an essentially independent battle. The division would have no reserve as such; even battle groups disposed in depth would have a primary mission of defending in place.

Essential to understanding the concept was an appreciation of what the Army now meant by "key terrain." As Lieutenant Colonel James W. Edwards commented, the existing notion of key terrain "which stresses fields of fire, concealment, observation, and natural obstacles is rapidly becoming obsolete."[17] To seize the high ground, once the defender's fundamental axiom, now marked the height of folly. In a nuclear era, according to Major General Hamilton H. Howze, "any force occupying the highest hill will be instantly detected and as quickly obliterated."[18] Henceforth, the value of terrain stemmed not from any immediate utility it offered the defender, but from the indirect advantage gained by denying it to the attacker. No motorized attacker could sustain an assault without maintaining his lines of communications unbroken. Even a momentary interruption in the flow of fuel, ammunition, and spare parts would cripple the most successful offensive. This modern Achilles heel gave key terrain its new definition. Colonel Edwards concluded that henceforth critical terrain would be the ground which, if occupied, "will deny the enemy the use of supply lines." The commander who anchored his islands of resistance to such terrain would "enmesh the enemy in a web of defensive perimeters and then ... strangle him by denying him logistic support."[19]

Colonel Edwards viewed the elements of this defensive web as static, forcing the enemy to attack them because of the important ground they controlled. General Howze, an armor officer and pioneer of modern Army aviation, took a more dynamic view. The commander controlling several islands of resistance, he wrote, would "react to attack by moving forward certain groups while others perhaps move sideward or backward." Battle would resemble "a game of chess, where pieces intermingle and each side seeks to neutralize or destroy the critical parts of his opponent—in a word, to checkmate the king."[20]

Although this truly was a bold design, it did not lack problems. What was the proper interval between these islands of resistance? The commandant of the Infantry School declared that considerations of survivability prescribed "three to five miles between battalion centers of mass."[21] That writer and others made vague references to covering the resultant gaps through future improvements in surveillance. Such expressions of hope really were acknowledgements that neither existing target acquisition methods nor available direct-fire weapons could cover such distances. The Army's islands of resistance indeed would be islands, with the expanses between them all but conceded to the enemy.

The defenders, moreover, had to concern themselves with the security of their own lines of communications. Indeed, in General Howze's mobile version of the area defense, defenders would be as dependent on uninterrupted logistical support as the attacker. How would the division commander help sustain widely scattered units in a battle that allowed the enemy to permeate between defense positions and to engage them from all directions? General Howze saw the answer in an "increased use of air lines of communication."[22] But this solution was futuristic, with limited immediate application. Recent history—most notoriously the Battle of Stalingrad*—gave little cause for confidence in even the most determined efforts at aerial resupply. Nor did the aircraft available to the Pentomic division appear capable of meeting such demands. As noted earlier, the airborne division had only 37 helicopters, all with limitations in range and capacity inherent in the early types of that aircraft. Infantry and armored divisions had even fewer helicopters.

Denied resupply, the islands of resistance would crumble. Isolation from other units would threaten their self-confidence, and the casual willingness to accept soft spots seemed to invite defeat in detail by a numerically superior foe. Only nuclear weapons offered some hope of deliverance. Perhaps instead of islands each American battle group would be a magnet—attracting concentrations of the enemy that would surround it. Such concentrations would present ideal targets for American tactical nuclear weapons. Their use in such circumstances promised to exact an enormous toll of the enemy. Unavoidably, of course, the magnet too would suffer.

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*The Battle of Stalingrad (summer of 1942–2 February 1943) was a major turning point in World War II: the unsuccessful assault on Stalingrad marked the limit of the German advance in the East and the beginning of a successful Soviet counteroffensive. (Stalingrad now is Volgograd, in the Russian Soviet Federated Socialist Republic.)

The area defense thus reinforced the Army's growing dependence on nuclear weapons. For only the early and liberal use of such weapons could make up for the doctrine's deficiencies. Yet the consequences of such an act were grim. By relying on nuclear weapons to stave off defeat, the Army might well be called on to destroy itself in the process. The irrationality of such a course did not escape thoughtful soldiers.

How did these changes affect how the soldier felt about being a soldier? Of all the questions concerning the Army after Korea, this question may be the most difficult to answer, and the one for which empirical evidence is most difficult to provide. World War II and the events that followed put an end to the clubbiness of the old Army. The character of the Army after World War II—far larger than any previous peacetime force, composed largely of short-service draftees, and dependent on frequent rotations to man large oversea garrisons—virtually ensured that its ethos would be centralized, bureaucratic, and impersonal.

The fighting in Korea reinforced such tendencies. Denied the chance to focus on victory as a final objective, commanders in the field sought other means of measuring operational efficiency. In practice, however, the methods that were devised betrayed only a tenuous relationship to real combat effectiveness. The Army in the field evinced a new interest in things that could be counted: friendly and enemy casualties, ammunition expended, patrols conducted, and outposts manned.

Once the Army legitimized such measures of performance, command—particularly at the higher levels—evolved into a business of managing statistics to obtain a prescribed result. Higher headquarters assigned quotas on everything from how many foxholes to dig in a defensive position to the amount of equipment a unit could report lost in combat over a given period. When Lieutenant General James Van Fleet commanded the Eighth US Army in Korea, his favorite indicator was ammunition consumption—the more the better. According to General Taylor, "artillery officers got, if not decorated and promoted, at least commended for the number of rounds they fired"—regardless of what they hit.[23] Predictably, the emphasis on statistics vastly increased the burden of paperwork imposed on companies and battalions. Worse, the pressure imposed on overburdened commanders to produce the right numbers—or else—steadily undermined the reliability of their reports.[24]

Post-Korea reforms intended to modernize the Army caused this bureaucratic-managerial style to become further entrenched. The emphasis on high technology as a keynote of the new Army inevitably produced the inclination to see soldiers less as warriors than as operators and technicians.

The 1954 report of a presidential panel on defense personnel—the Cordiner Commission—reflected this perspective. According to the Cordiner Report, "radically accelerating technological change" was forcing "every modern institution to critically reappraise old practices and old traditions as it battles to survive in this changing era." The military was no exception. "Fantastically complex" equipment was creating unprecedented requirements for technical competence among Service personnel. No longer would a soldier be evaluated primarily in terms of "discipline and physical fitness." The new measure of effectiveness was technical competence. So too were demands on officers changing. The future, according to the Cordiner Report, would require a "military officer-manager" schooled in "the techniques of cost accounting, budgeting, and a variety of industrial management operations."[25]

Advocates of efficiency in an organization of steadily increasing complexity viewed soldier-technicians not as individuals but as interchangeable parts coming off an inexhaustible assembly line. With a large portion of the force serving an involuntary two-year hitch, the soldier seemed less a member of the Army "family" than a commodity—something to be fashioned, used up, and eventually discarded in favor of a fresh replacement. As a predictable result, military service became less a calling or way of life than a job—and usually a temporary one at that.

The entrance to the company orderly room became a revolving door, with personnel coming and going at an astonishing rate. During FY 1955, for example, the Army discharged 800,000 soldiers and brought 500,000 new recruits on active duty, all while reducing its overall strength from 1.4 million to 1.1 million.[26] The perpetual reassignment of personnel overseas to sustain the multi-division forces deployed in Europe and Korea only accentuated this turbulence. A long-time observer of the Army attempted to describe the effects of this turbulence on soldiers as follows:

> The system takes hold of them from the very outset—the formless, faceless, impersonal system. They are processed, classified, assigned to a training unit—among strangers. They never get to feel any sense of identity or belonging—what's the use? They won't be there long. [Ordered overseas], they travel with strangers. They are assigned to a unit in which they are strangers. [Within the unit], the noncoms who receive them and begin molding them into real soldiers are rotated out before they've gotten acquainted; their officers are being constantly changed. [Very soon] their time is up and they're rotated back to the United States, assigned somewhere or other (any old where) to fill out their last few weeks, processed again, and released from active duty.[27]

Another writer, Colonel Richard W. Whitney, criticized the Service for "failing to provide the combat arms soldier with a home in the Army and a sense of belonging." A contributing factor, he believed, was the Army's penchant for continually deactivating and reactivating units, regardless of the length or distinction of their service records. To Whitney, such a practice reflected "misguided economy and administrative convenience" pursued at the cost of unit esprit.[28]

The Army's senior leadership made one highly touted effort to reduce personnel turbulence and build unit identification. *Operation Gyroscope*, a well-intentioned but ill-conceived plan to replace the individual replacement system with one of unit rotation, was announced in the fall of 1954 for implementation the following summer. *Gyroscope*—the name chosen to suggest "rotation with stability"—would involve the regular exchange of whole divisions between oversea garrisons and posts in the United States. The Secretary of the Army optimistically predicted that *Gyroscope* would permit some soldiers "to spend their entire career with a single division." By always returning a particular deployed division to the same stateside post, the Service also hoped to provide a better life for Army families.[29]

Unfortunately, *Gyroscope* had problems from the outset. Few stateside units were maintained at their authorized strength. Consequently, preparing one outfit for movement overseas often meant depleting others that already were understrength and whose doubtful readiness suffered further as a result. Within deployed units scheduled to return to the United States, personnel who had served only briefly overseas—in particular two-year inductees—often were diverted to complete their hitch in other units within the same theatre. The net effect across the Army was not to reduce turbulence but to aggravate it. After a certain amount of tinkering, the Army tacitly admitted its failure and in 1959 abandoned *Gyroscope*.[30]

The transformation of soldiering in the 1950s—epitomized by General Taylor's remark that every American officer carried a field marshal's baton, "not in his knapsack but in his briefcase"—

resulted from the accumulation of many small, apparently inconsequential decisions.[31]

No evidence exists that senior leaders anticipated the impact of those decisions on their profession. Indeed, few of these leaders recognized how the internal life of the Army was changing. The sensitive ones who did, however, became uneasy about what they saw. Although an influential proponent of reform while Army Chief of Staff, Ridgway also spoke out frequently in defense of the warrior ethic and traditional soldierly values. When Ridgway called man "the supreme element in combat," he had in mind not a skilled technician but someone standing apart by reason of his "courage and endurance" and his "fighting heart."[32] Yet considered against the full flood of change that the Army experienced in the 1950s, Ridgway's views seem hardly more than a battered remnant of traditionalism, bypassed by the forces of technology and bureaucratization. However romantic their appeal, Ridgway's sentiments remained irrelevant to what most members of the atomic-age Army recognized as the experience of soldiering.

One who did grasp better than most the implications of this new ethos was Roger W. Little. A junior officer in the 1950s, Little later became a professor of sociology. His article, "Solidarity is the Key to the Mass Army," published in February 1955, captured better than any official document what was happening to the Army after Korea. "Soldiering," announced Little at the outset of his piece, "is no longer a way of life." The old Army had vanished. In its place had emerged a force that was bigger, smarter, better paid, and more reliant on machines, a "mass army in which the soldier has become more like the civilian, and the garrison more like the city." In this new Army the "individualistic conception of military life" had become obsolete. In an Army where "military units have become more like crowds than ... regiments," relationships were too impersonal and transient for individualism to matter. Members of this new mass Army, reflected Little, "don't really 'know' one another," adding:

> The regiments are ... anonymous collections of people, constantly changing before their members develop common standards, and sharing few if any memories of the battle or the bivouac. The mass soldier thinks of his role in the Army as a temporary job, rather than a "calling" or a vocation, and compares it with other civilian jobs rather than other military jobs.

That soldiers would view themselves as civilians in uniform was a natural consequence of the new Army's preoccupation with efficiency. According to Little, "military organization was consciously adapted to the image of the industrial plant." Utility and efficiency became the principal criteria for determining how to do things or whether to do them at all. Customs formerly justified as building esprit or maintaining traditions were discarded, repackaged, or modernized—as with the replacement of the soldier-musician who blew retreat by a "bugler ... pressed into a microgroove and regulated by the night clerk at post headquarters."

Ever narrowing specialization drastically shrank the core of common experience that all soldiers shared. Specialization also increased the proportion of soldiers whose skills dealt with administration and management rather than fighting. "Even the commander ultimately becomes a 'manager,'" wrote Little, isolated by his staff so that his relations with his men were "mechanical rather than personal." Soldiers no longer looked to their unit as a source of assistance but to the city-like military post that offered "supermarket services" operating on a scale and level of efficiency that no orderly room could match.

The future, predicted Little, would only further align the Army with the values of the industrial plant and the modern city. To an increasing degree soldiers and civilians would "seek the same rewards" and "share the same standards." The criticality of technical skills that smart young draftees so adeptly mastered or carried from civilian life would reduce the importance of long-service soldiers. Abandonment of the notion that "living and working together over a long period of time" were essential to a good outfit also would contribute to the career soldier's demise. His departure further would blur the distinction between life in and out of uniform. Mobility between civil and military life would expand as skills required of both became comparable. Combat would consist of coordinating those skills, a responsibility to be overseen by technocrats drawn almost directly from civil life, helped by a class of military managers who would influence subordinates not by leadership but "by impersonal managerial techniques." Such mass soldiers still would win wars, Little bleakly insisted, but "they will expect it to be done in a businesslike way, without fanfare and trumpets, and then go home."[33]

US Army Photo

***Davy Crockett* (Light), XM–28, at Aberdeen Proving Ground in March 1961.**

6. Reaction and Rejection

When General Lyman Lemnitzer, Taylor's successor as Army Chief of Staff, proclaimed in 1959 that growing Soviet and American nuclear arsenals were creating "the equivalent of strategic nuclear disarmament," he was restating an old Army theme that rapidly was becoming the conventional wisdom.[1] The Army's long-held view—that strategic nuclear weapons were not usable and that future threats to American security most likely would take the form of conflicts below the threshold of general war—now was the informed public's view as well. Acknowledging this shift in public opinion, General Bruce Clarke, speaking soon after Lemnitzer, tried once and for all to put to rest the Army's old fear that nuclear weapons had rendered the soldier obsolete. According to Clarke, commander of the Continental Army Command (CONARC), "that dangerous myth of the frantic fifties is almost as dead as a dodo."[2]

Indeed, the approaching end of the decade seemed to presage a resurgence in the Army's fortunes. Notwithstanding Eisenhower's undiminished personal popularity, by 1960 the concept of massive retaliation had been thoroughly discredited.

Although the Army's critique alone had not achieved this outcome, the Service's early and persistent dissent had been vindicated. Highly touted products of the Army's modernization effort, with emphasis on nuclear weapons and missiles, were in the field or due there shortly. The Pentomic concept, with its radically new organization and doctrine for fighting either nuclear or non-nuclear wars, was in place. By and large, the Ridgway-Taylor-Gavin reform agenda was complete. Indeed, despite the Army's difficulties in the 1950s, Service leaders who reviewed the decade could look back on some significant and satisfying victories.

More importantly, they could look with optimism to the future. "Flexible Response," the strategy so persuasively presented by General Taylor in his book *The Uncertain Trumpet*, was acquiring all the trappings of an idea whose time had come.[3] Regardless of who won the 1960 presidential election, Eisenhower's departure from office certainly would mean new military policies that would increase the Army's share of defense resources and give it a more prominent role in national security affairs.

Surprisingly, however, the mood of the Army at the end of the decade did not reflect optimism, but an uneasiness about what had been accomplished thus far. Many officers were having second thoughts about the way the Army had conducted its fight against the "New Look." Some began to express doubts about the direction in which the Army had moved, suggesting that in seeking to escape one captor the Service may have surrendered itself to another, more dangerous one.

These second thoughts took several forms. One critique came from those skeptical that the answer to challenges triggered by technological change lay in yet more technology. These traditionalists resisted any deviation from the principle that man remained the most important factor in the Army and in warfare itself. They questioned the notion that new weapons and technical gadgetry could guarantee the Army's relevance and effectiveness. Despite much pious Army rhetoric to the contrary, they feared that changes effected within the Army in the 1950s betrayed a tendency to trade traditional soldierly values for technocratic ones. And they refused to accept this approach. One particularly eloquent spokesman for this view was S.L.A. Marshall, the journalist and military historian, a respected "insider" even though not a member of the regular Army establishment. Marshall was especially critical of the Army's infatuation with nuclear hardware at the expense of fighting skills. To read current Army doctrine, he wrote, "one might think that the whole future is to be won through the augmenting of fire power." His own reading of the recent past, and expectations for future wars, led him to a different conclusion. The enemy seldom was so obliging as to provide a perfect nuclear target. In most conflicts since 1945 the enemy had presented only "elusive targets," often mingling with the civilian population and operating without fixed lines of communications. "To go after such forces with atomic weapons," observed Marshall, "would be like hunting fleas with an elephant gun."[4]

That seasoned military professionals should fall prey to such fallacious ideas especially bothered Marshall. How was it possible, he reflected, that Hiroshima could so abruptly persuade soldiers that "all things had changed for their profession, ancient values been flushed down the drain, and the way of the fighter ... made sterile by the weight of the bomb?" Marshall saw the answer in the Army's apparent compulsion to "genuflect" at the "altar of machine power." He noted with regret that

> it is not just in the world of Christian Dior that what is fashionable provides entree to the purse. We live under the sign of the ephemeral. When an army looks outdated, its support falls away. There are other hungry services and some of their spokesmen might be rash enough to consider doing the job alone.

Adhering to fashion in order to ensure institutional survival had not been without cost. Reform, warned Marshall, was a "runaway word, sometimes making greater problems than it solves."[5] By instituting reforms that denied the primacy of the individual fighting man, the Army ignored the lessons of history and courted disaster.

A second group of critics attacked the reforms of the 1950s from a more pragmatic perspective. Less sensitive than the traditionalists to threats to the warrior ethic, these officers evaluated change according to whether the change was realistic, practical, and applicable to war as they understood it. Judging the reforms of the 1950s according to those criteria, they found much that was wanting.

Some questioned the Army's cavalier assumptions about the feasibility of conducting coherent operations in the midst of nuclear war. In 1959, an officer complained of "too many aspects of nuclear warfare that we have vague or no answers to today."[6] Lieutenant General Arthur S. Collins, Jr., recalling the 1950s asserted that "the Army hadn't thought through the use of nuclear weapons; there was a tremendous emphasis just to get some nuclear capability, without regard to how it might be used." According to Collins, "the Army never related the weapon to the battlefield, and how you were going to fight under the conditions that a nuclear war would create in a forward area." The typical maneuver exercise or map problem assumed that the Army would fight conventionally until it began to lose and then "we'd let loose several nuclear weapons" to reverse the tide. Collins recalled one particular scenario that relied on the use of a single 500-kiloton (500 tons of TNT) weapon as follows:

> They were talking about a tactical nuclear war . . . in Germany somewhere between Stuttgart and Munich. . . . I raised the question, "Do you have any idea of the amount of damage that would result from that size bomb?" Having seen what one small 20-KT weapon had done to Hiroshima and the countryside, I could imagine what a 500-KT bomb would do in the Munich area. They just brushed the damage question aside, and I did not consider the reply adequate. Then when you took into consideration the other weapons that had been fired in that problem, it just didn't make sense to me.[7]

Equally serious questions arose about the practicality of the Pentomic organization. Operational command of a division designed for optimum flexibility turned out in the field to be awkward and unwieldy. The span of control demanded of commanders exceeded the capability of even the most able. Reflecting the absence of an intermediate brigade or regimental echelon, the division commander found himself directly concerned with the activities of as many as 16 different subordinate units. And the structure of the battle group itself, whatever its presumed merit in a nuclear environment, proved ill-suited for conventional operations. Units did not acquire a genuine dual capability. Instead, they found themselves organized almost exclusively for nuclear war even as expectations grew that the next war would be non-nuclear. Commanders found the tasking of organized Pentomic units especially difficult. The inability to modify formal organizations to suit the needs of a particular mission reduced the division's effective combat power. To make matters worse, the Pentomic division's increased foxhole strength proved illusory. As organized, the division proved unable to sustain itself during continuous operations. Commanders resorted to stripping combat units to bolster service support elements too weak to support the division.[8]

Senior leaders consequently turned on the Pentomic experiment with surprising vehemence. Most officers refrained from criticizing the Pentomic concept too openly as long as its architects remained on active duty. Recollections recorded years later, however, allowed officers to be more candid and to express virtually unanimous opposition. General Hamilton H. Howze blasted the Pentomic concept's "ridiculous aspects," which he characterized as "too redolent of Hollywood or Madison Avenue."[9] General Donald V. Bennett dismissed the Pentomic division as simply "a device to say 'Yes, the Army has moved into this nuclear age.' " Bennett believed that deficiencies in mobility and logistical depth rendered the division virtually ineffective. "So it didn't work," he concluded with some warmth.[10] "If I sound bigoted on this, I am." In General Paul L. Freeman's view, the Pentomic division was "a mess." "Every time I think of the ... Pentomic division, I shudder," he said. "Thank God we never had to go to war with it."[11] Even General George H. Decker, Lemnitzer's successor as Army Chief of Staff, concluded that the Pentomic division was "a jack-of-all-trades-and-master-of-none" concept and stated flatly that it was not "a suitable vehicle for combat."[12]

Other officers found fault with the assumptions that had inspired the Pentomic concept. In a penetrating article entitled "Verbal Defense," Colonel Henry E. Kelly assigned American tactical doctrine a failing grade on two counts. According to Kelly, Army doctrine always presumed that "the attacker will employ tactics obviously unfavorable to himself." Worse, the Army's doctrine implied that "a theoretical concept can be practically implemented ... although no means of execution exist." To any "difficult practical problem" that it encountered, Army doctrine offered only "a verbal solution"—the "virtuous words" of dispersion, flexibility, and mobility. Kelly had nothing against what he called "these magic words," but he doubted that an army could acquire such qualities merely by repeating the words over and over again. "Reliance upon words which are not backed by practical ability," warned Kelly, "is extremely dangerous."[13]

In a similar vein, two instructors at the Army Command and General Staff college argued that a predilection for defining the tactics of the next war in vague, "generic terms" was creating a "popular misconception of the ground battle." They worried that such terms might mislead American officers into thinking that "a few well-placed nuclear weapons" would suffice to set the stage for a "grand maneuver to 'sweep up the remains'" of the enemy. "Such generalities appeal to the imagination," they concluded "but are of only limited practical value." The Army's emphasis on new techniques and the promise of futuristic technology seemed to beg the basic question: "How do we fight today's battle with today's equipment?"[14]

More fundamental still was the criticism of those who questioned the sense of even trying to build an Army equally capable of fighting a nuclear or non-nuclear war. Critics attacked the concept of dual capability from both sides. Representing one perspective was Colonel Francis X. Bradley, whose article, "The Fallacy of Dual Capability," appeared in the October 1959 issue of *Army*. Bradley believed that the Army's pursuit of a dual capability showed a refusal to acknowledge the realities of Soviet power. In his view, those who believed that the next war could be concluded using only conventional weapons were naive. Given the USSR's superior strength, any war against the Soviets inevitably would face the United States with the choice to "use nuclear weapons or accept defeat." To think otherwise was to engage in self-deception and expose the nation either to blackmail or outright disaster. To Bradley, the lesson was clear: "We must go nuclear."[15]

Bradley's forthright advocacy of nuclear war provoked a diametrically opposed response. Arthur S. Collins, Jr., then a colonel, answered Bradley in an article appearing in the next issue of *Army*. Collins began by expressing disbelief that "anything worthwhile or meaningful can result from the employment of nuclear weapons in war." Collins dismissed as unrealistic efforts to differentiate between tactical and strategic nuclear weapons. He could find "no rational explanation ... of just now tactical nuclear war will be kept limited—which is the overriding requirement in this type of military action." He chastised the Army for failing to calculate the impact of even small nuclear weapons on nearby noncombatants. He argued that "what might be a limited nuclear war to us might be the nuclear holocaust in the area of conflict."

As a result, excessive American reliance on nuclear weapons to defend places like Europe would "encourage our allies to be neutral and to tell us to go home." Collins thought that the Army had done no better in considering the effects of nuclear weapons on its own operations. "We talk about what these weapons can do **for** us, but we seldom discuss what they can do **to** us." His own view was that as long as the country's most likely enemies possessed nuclear weapons, "little advantage seems to be gained by our use of them." All in all, Collins concluded that "our American enthusiasm for more gadgets and fewer men has carried us away" with results that were wrongheaded and even dangerous.[16]

The Army's doctrine thus found itself under fire from opposite directions. Bradley urged the Army to abandon its hopes for a conventional conflict and embrace the expectation of nuclear warfare without reservation. Collins, on the other hand, argued that even the smallest nuclear weapons possessed no practical utility whatsoever. He believed that the Army's challenge was to fight and win without being pushed across the nuclear threshold. Both officers agreed on one thing only: that the Army should chuck the whole notion of dual capability as unrealistic and unobtainable.

Hoping to salvage that notion, and somehow reconcile the views of Bradley and Collins, Colonel William E. DePuy came up with yet a third perspective. DePuy was a soldier of considerable insight who as a senior officer in the 1970s would become a principal architect of the Army's recovery after Vietnam. His response to Bradley and Collins, also appearing in *Army*, was entitled "The Case for a Dual Capability."

DePuy believed that in pursuing a dual capability the Army had followed "the only sensible course," one that could be faulted only for "suffer[ing] from too thin a diet of resources." His article sought to preserve dual capability by providing a justification for the concept that reached beyond the concerns of Bradley and Collins.

DePuy began by examining the capabilities of the nation's likely adversaries, above all the USSR. The Soviet threat to American national security, he asserted, was both conventional and nuclear. In considering this double-edged threat, DePuy believed that "suggest[ing] that we have a choice between them" was "grossly wrong . . . and by so doing suggest[ing] that we turn our backs upon certain aspects of the Soviet threat which may, in fact, do us in."

DePuy knew that on the topic of defense, "national temperament" inclined Americans "to lean more heavily upon our technology than upon our manpower." He believed, nevertheless, that existing threats to US security, if assessed objectively, did not permit Americans to indulge that inclination. A foe that had both great numerical strength and the latest in military technology denied the United States the luxury of choosing to emphasize either machines or men. The country needed both. The need was imperative, he believed, to "maintain a rough symmetry of capabilities with the communist bloc in each category of force, or at some point we simply will be faced with a bet we cannot cover." To achieve this rough equivalence, he insisted, would require that American forces "be greatly increased in both conventional and nuclear capabilities, increased in NATO, in the Far East, and in strategic reserve."

DePuy's analysis suggested an important shift in emphasis. To a greater degree than Bradley or

Collins, DePuy had anticipated forthcoming changes in the Army's nuclear doctrine. The Army initially had justified tactical nuclear weapons as necessary to make good the West's numerical inferiority. Although the Soviets had acquired the basic secret of the bomb, the Army believed that the United States alone possessed the know-how to make nuclear weapons small enough, accurate enough, and in sufficient quantity to be **usable** in land combat. Super weapons produced by superior technology would give the Army a war-winning advantage that the Soviets would not be able to match. Unfortunately, American expectations regarding Soviet technological capabilities were disappointed. By the late 1950s the Soviets had developed their own family of formidable tactical nuclear weapons. As a result, attempts by the Army to justify such weapons for their supposed warfighting edge no longer had any credibility. DePuy's endorsement of such weapons emphasized not the edge they provided but the necessity of keeping up with an equivalent Soviet capability. More to the point, the objective of keeping up no longer was to develop an arsenal for actual use; DePuy agreed completely with Collins that any war fought with tactical nuclear weapons would lead only to a senseless, "smoldering stalemate."

The Army of the 1950s had spent billions in developing nuclear weapons. It had undergone a wrenching reorganization and rewritten its basic tactical doctrine to gird itself for the expected demands of nuclear warfare. Yet scarcely had the Army settled on its new course when thinking officers began to realize that its nuclear weapons could serve no purpose except to deter Soviet use of their own tactical nuclear arsenal—an arsenal whose existence may well have been stimulated by the energetic American endorsement of such weapons. Henceforth, wrote DePuy, the sole rational object of maintaining a tactical nuclear capability was to be "strong enough to deny an enemy the chance of victory through tactical nuclear warfare."[17]

For all its merit, DePuy's conclusion was not lacking in irony. The Army had begun the Eisenhower era attacking the concept of massive retaliation, insisting that nuclear deterrence based on strategic nuclear weapons inevitably would fail. The Army had assumed that when such failures occurred, American interests would require US forces to engage in combat—probably on a level well below that of general war. Because the "New Look" threatened to eliminate the forces needed in the event that deterrence broke down, the Army also placed itself in opposition to the administration's basic military policy.

Simultaneously, the Army instituted on its own initiative extensive reforms intended to prepare for such wars—wars that the administration itself did not expect even to come about. Yet having acquired its missiles and nuclear weapons, and having adopted its Pentomic structure, the Army found itself by the end of the 1950s organized not to fight but almost solely to deter. From the perspective of the war deemed most likely to occur—or of the war that actually did occur in Vietnam—the reforms of the 1950s unquestionably had made the Army a less effective fighting force. In addition, these reforms had vastly complicated the problems of future military reformers by imposing on the Army an accumulation of nuclear weapons that would remain long after short-lived dogmas such as the Pentomic concept had been discarded. *Corporal* and *Honest John*—no less than their successors *Pershing* and *Lance*—cast an ineradicable pall over future attempts to define the purpose of land power and to develop rational methods to use its potential.

Considered in retrospect, Army reforms of the 1950s—seemingly so far-reaching at the time—appear striking for their impermanence. When John F. Kennedy succeeded Eisenhower in January 1961 and proceeded to implement the concept of Flexible Response, the Army abandoned its 1950s initiatives with almost unseemly haste. Battle groups, Pentomic divisions, the emphasis on dispersion and non-linearity, the quest for light formations, the commitment to fighting with tactical nuclear weapons: all quietly were shelved or unceremoniously dumped. Concepts hurriedly developed as quickly lost their attraction, superceded by another wave of "new ideas." Army publications crackled with a fresh vocabulary—brushfire wars, counterinsurgency, nation-building, special forces—said to contain the essence of future wars. **These** were the concepts and skills that soldiers had to master. After 1960, perceptive officers were no more likely to speak out in favor of the Pentomic concept than they were to call for a return to horse cavalry. Professional journals instead featured articles with titles like "Revolutionary War and Psychological Action," "Objectives and Methods of Communist Guerrilla Warfare," "When We Fight a Small War," and "Antiguerrilla Operations—A Case Study From History."[18] More than words were involved: soldiers of the early 1960s again were whipsawed by reorganization: a new divisional structure, new doctrine, new types of units—and before long a new war in which to employ them.

Repeating the experience of the previous decade, reforms of the 1960s sought to remake the Army according to a self-generated image of warfare that the Army itself continued to revise with unfailing regularity. As a consequence, the Army repeated this process again and again. By the mid-1970s a new doctrine, subsumed under the rubric "Active Defense," superceded counterinsurgency, itself a casualty of Vietnam. Within a half-dozen years the Army discarded "Active Defense," replacing it with "AirLand Battle." Barely had the ink dried on the manual describing the principles of "AirLand Battle" when that concept found itself if not supplanted at least obliged to make room for another innovation—"Light Infantry."

The fitfulness of recent American military thought stands in contrast to the orderly and consistent evolution of Soviet doctrine. Consistency, especially if it implies stagnation, may not be a virtue. On the other hand, neither is continuous change masquerading as reform. At some point, the frequency with which the leadership steps off in a new direction outstrips the institution's ability to follow. However well intentioned, such change leads to disorientation and confusion rather than improvement.

Why has the Army redefined its approach to war every few years? Objective factors have not required such frequent change. Since World War II, the nation's role in world affairs, its vital interests, and the perceived threat to those interests have remained remarkably constant. Rather than such factors, the absence of a consistent operational concept has inspired the Army's "new ideas," with technology being used as a fig leaf to cover the changes while they were being justified and attempts were being made to sell them.

The ethos of post-World War II America accounts in some measure for the Army's inability to adhere to such a consistent outlook. After 1945, with most Americans believing that Hiroshima had changed all war irrevocably, the country showed little interest in considering the role that land forces henceforth might play in national defense. Instead of puncturing naive popular expectations about warfare, the fighting in Korea strengthened them, creating a strong prejudice against engaging in any more dirty land wars. Eisenhower's defense programs signified the adoption of such thinking as national policy, a turn of events made all the more decisive by the President's military credentials. Designating deterrence as the military's primary mission obliged Eisenhower to embark on a radical realignment of defense forces. The reduction of resources permitted to the Army, while the most obvious result of that realignment, was not, however, its most important effect. Of greater lasting significance, Eisenhower's policies left the Army shorn of its self-image as the nation's primary fighting force, and groping for a worthy raison d'etre among a people largely uninterested in the Service's problems.

Eisenhower understood full well how his policies were affecting his old Service. As he observed to Admiral Radford in 1956, "the lack of a doctrine that assigns the Army a definite and permanent mission has left them somewhat unsatisfied and even bewildered. Their role is rather hazy to many of them."[19] Eisenhower may even have felt some sympathy for the Army's predicament, but as Commander in Chief he insisted that the Army accept the diminished status that a strategy of deterrence prescribed.

The savage cuts of the "New Look," the uncompromising stance of the President, and the country's general apathy toward the Service combined to give the Army's inevitable protective backlash its remarkable energy and its sometimes reckless character. In addition to positive aspects, such as efforts to "modernize," improve tactical concepts, and develop a more positive image, the Army's campaign to defend itself also included provocative jostling over roles and missions, attacks directed at the other Services, and progressively virulent criticism of the President's own policies. Eisenhower was especially distressed by the growth of what he called "competitive publicity" among the Services, particularly when inter-Service rivalry resulted in the "leaking" of classified information.[20] This habit of airing Service gripes in the press, he remarked in 1955, "might belong to a bunch of politicians, not to the military."[21]

Eisenhower failed to see that his own policies had done much to provoke the behavior that he found so distressing. The President might have been able to contain inter-Service rivalry and gain a greater degree of support for his defense programs had he been more accommodating toward certain Service interests—particularly the Army's need to retain a fully developed mission. Like so many other senior officials in recent decades, however, Eisenhower chose to view Pentagon problems as organizational ones. He believed that the controversy over his military policies reflected not substantive concerns but an absence of cooperation and unity within the Defense Department. Resolving that controversy he felt, simply was a matter of fostering teamwork and broadmindedness. Yet his efforts to achieve unity by making the existing JCS establishment work produced only disappointment. "So far as I am personally concerned," Eisenhower confided to his friend Swede Hazlett in 1956,

> My most frustrating domestic problem is that of attempting to achieve any real coordination among the services.... I have tried to tell the Chiefs of Staff ... that their most important function is their corporate work as a body of advisers to the Secretary of Defense and to me.... Yet I have made little or no progress in developing real corporate thinking.... I try to make the Chiefs realize ... that they are men of sufficient stature, training, and intelligence to think of ... the balance between minimum

> requirements in the costly implements of war and the health of our economy
>
> Based on this kind of thinking, they habitually, when with me, give the impression that the[y] are going to work out arrangements that will keep the military appropriations within manageable proportions and do it in a spirit of goodwill and of give and take.
>
> Yet when each service puts down its minimum requirements for its own military budgets for the following year, and I add up the total, I find that they mount at a fantastic rate. There is seemingly no end to all of this. Yet merely "getting tough" on my part is not an answer. I simply must find men who have the breadth of understanding and devotion to their country rather than to a single service ...[22]

More accurately, the President was seeking broad-minded men as part of a reformed JCS organization. He already had concluded that "the Chiefs of Staff system that we now have has failed."[23] This perception eventually led to the Defense Reorganization Act of 1958, an attempt to increase the authority of the Secretary of Defense and the JCS at the expense of the Services. Yet the specific content of that legislation is of less interest than the mindset it reflects: that the solution to deficiencies in the Pentagon lay in reorganization to suppress Service perspectives in favor of those representing a joint or unified point of view.

Eisenhower believed that Service views inevitably were tainted by parochialism, a view widely shared before and since. The President was mistaken, however, in thinking that suppressing parochialism and reducing inter-Service rivalry were the major military issues of the day. They were only symptomatic. The real question was not how best to organize the military. Rather, as the Army alone recognized, it was to identify the range of contingencies for which military forces should prepare in light of the expected requirements of national security. For surely the Army was correct in asserting that the passive military role envisioned by massive retaliation was inadequate.

Shrewd enough in pointing out the fallicies of massive retaliation, the Army failed dismally in contriving an alternative to replace it. More than anything else, this failure explains the short-lived nature of the reforms that the Army instituted in the 1950s. Deluded by the chimera of nuclear weaponry, hotly pursuing the false ideal of dual capability, driven by reasons of expediency to seek a share in deterrence, the Army never was able to articular a coherent operrational concept that would both overcome the reigning skepticism about land power and provide a comprehensive strategy that overcame the deficiencies of massive retaliation.

The incessant emphasis on technology was little more than an artful dodge concealing the emptiness of the Army's thinking. The futurists who proclaimed that changing technology was reshaping the face of warfare succeeded only in laying the Service open to doctrinal fads. Captivated by the prospect of turning the latest technological breakthrough to the benefit of short-term institutional goals, Service leaders charged off to develop the doctrine, tactics, and organization needed to convert technological promise into combat capability. The danger of this approach—to judge by the 1950s—was that the Army's unfettered enthusiasm blinded it to the limits of technology in the overall equation of war and to the real problems that technological change brings in its trail.

ONE ARMY
ON ALERT
"that this nation shall not perish"...
US ARMY

A recruiting poster for an ultra-modern, relevant Army

The contrast between the Army's attitude toward strategic and tactical nuclear weapons provides the best illustration. Inspired in part by the threat that massive retaliation posed to the Army's interest, Service leaders fashioned a critique of strategic nuclear weapons that was thorough, cogent, and wise. Convinced, nevertheless, that tactical variants of nuclear weapons would be helpful in preserving the Army's legitimacy, these same soldiers rebuilt the

Service around missiles and low-yield nuclear weapons and plunged into the ill-conceived, unrealistic Pentomic experiment. That experiment failed and did the Army immeasurable harm, a judgment corroborated by those who endured the Pentomic Army and who junked it at the first opportunity. With their critical faculties neutralized by their anxiety over certain institutional needs, Service leaders had been stampeded into accepting a cockeyed technological fix without grasping its implications.

Is this preoccupation with technology bad? Even if we conclude that the Army's preference for certain technologies in the 1950s was ill considered, technological optimism at other times does not necessarily follow as inappropriate. After all, nothing is inherently wrong with technological innovation. Certainly, habitual obsolescence is an unpromising path to follow in search of military excellence. Yet a review of warfare since World War II shows few instances in which technological advantage has proven decisive. Instead, the record provides examples of superior technology powerless to avert defeat—as in the US experience in Vietnam. The record contains at least one instance in which technology hardly seemed relevant to a war's outcome: the reconquest of the Falklands by Royal Marines and British infantrymen. Even in the realm of high-intensity conflict, the most brilliant victories, such as those of the Israelis in the Six Day War, have been won with aging, hand-me-down equipment.

This discussion is not meant to argue against the desirability of up-to-date material. But it suggests that Americans may be missing the point in emphasizing technology as the cornerstone of military effectiveness. For the Army of the 1950s, bent on preserving its existence, this view certainly was the case. Reviewing the decade from the vantage point in 1960, two distinguished soldiers, Colonel George A. Lincoln and Colonel Richard G. Stilwell, lamented the fact that the Army had expended "too much of the talent of our best minds to inter-Service debate and to the battle of the budget." Seizing on missile and nuclear technology to free itself from conditions imposed by the "New Look," the Army had fielded weapons that appeared promising in theory but whose "combat value ... against a numerically superior and nuclear-equipped foe is obscure." Lincoln and Stilwell doubted that tactical nuclear weapons would ever serve any purpose apart from deterrence. Like other thoughtful soldiers, they were discovering that an atomic army was not a fighting army. Yet given the scope of the Army's nuclear investment, they feared that the Service would find it almost impossible to revert entirely to its previously conventional character. As Lincoln and Stilwell astutely noted, the Army's commitment to nuclear weapons thus threatened to "chain our country to a strategy, even though that strategy has become questionable."[28]

If the Army's compulsive commitment to nuclear technology in the 1950s led to a strategic dead end, asking whether any alternative existed is a fair question. Given the benefit of hindsight, one such alternative did exist. We can see today that the Army's primary task down to the present has continued to be precisely what it was in Korea: the application of force to maintain the global status quo that emerged from World War II. While the United States does not claim a formal empire, and the use of that term has severe pejorative connotations, the Army since 1945 has played the historic role of an imperial defense force, called on repeatedly to protect far-flung American interests threatened by global brushfires fanned by the winds of political change.

This role was as true of Korea in 1950 as it later would be of Vietnam, the Dominican Republic, and Grenada. Indeed, it is equally true regarding the long-term US presence in Europe as part of NATO and the brief American intervention in Lebanon in 1958; though in neither of those instances has protecting the status quo involved fighting. Wether politically or morally these interventions have been "good" or "bad" is a question beyond the scope of this paper. From a military perspective, the essential facts are that American interests repeatedly have required the Army to intervene overseas and that when these interventions involve hostilities, the Army has engaged in combat of a traditional and even somewhat old-fashioned character. Indeed, if recent American conflicts differ from earlier wars at all, this difference is less because of any new technology they may involve than because of the pronounced impact of politics on their conduct.

In short, the model that the Army might have adopted in the 1950s was an interventionist one. In comparison to the Service's infatuation with high technology and dual capability, an interventionist model would have provided an operational concept far better suited to the tasks that political leaders subsequently directed the Army to perform. Viewing itself as an instrument for intervention in highly politicized conflicts of limited scale would have enabled the Army over the long run to equip, organize, and train its soldiers in ways far more pertinent to what they actually have been called on to do.

Granted, an American Army openly proclaiming itself to be an imperial police force would have difficulty garnering popular or congressional support. That statement holds as true today as it would have for the 1950s. Adopting something like an interventionist model as an operational concept assumes that the Army would find ways to explain the concept inoffensively, using terms suited to American political discourse. The important point would not be the words, but the advantage gained by being able to govern the Army's enormous internal energies under a single, pertinent, unifying idea of why the Service exists.

The military profession's interest in history stems from more than intellectual curiosity. Historiographical debate does not attract soldiers to the past; but the hope of identifying lessons with some practical application does. Such an approach, however, is not without risk: superficial analysis easily produces false or misleading analogies—with potentially disastrous results. Nonetheless, if pursued with caution and intelligence, efforts to apply history are entirely legitimate and justify the present mindedness that pervades military history. Discovering useful lessons from history requires that we examine the past through a lens made up in part of present-day concerns. Although such a utilitarian approach to history may bother academic purists, this approach does not bother soldiers at all.

Soldiers of the 1980s rightly will ask whether the Army's experience of three decades ago has any relevance to questions that they face today. The answer is yes, emphatically so. Again today the Army find itself in a period of reassessment. Once more, Service leaders talk about change that is transforming the character of warfare. Many items high on today's military agenda in the United States—the utility of nuclear weapons; the impact of emerging technologies; the need for light, ultra-mobile forces—are echoes of issues from 30 years ago. As a result, the Army's efforts to address the problems of that day provide fertile ground for identifying lessons with application in the 1980s.

Chief among those lessons must be the importance of possessing a clear understanding of the utility of force in the modern world. The Army cannot afford either to pretend that the destructiveness of modern weapons has made war obsolete, or to persuade itself that such weapons alone hold all the answers to waging successful war. This issue is not one of mere theoretical interest; it is the crux of the matter. As General Gavin observed to Henry Kissinger in 1955, the realization that they "can no longer use the products of human invention indiscriminately" has confronted soldiers with an "intellectual problem" of the first order: "For what purpose would one fight a war, and what would be the proper role of Armed Forces in any war?"[25] The Army has yet to answer these questions in a satisfactory manner.

US Army Photo

Lieutenant General James M. Gavin, Chief of Army Research and Development, with a model of the *Redstone* missile in 1956. He cautioned that the indiscriminate use of the products of human invention has confronted soldiers with the intellectual problem of the proper role of armed forces in war.

A second lesson is the value of treating Utopian technologies with a modicum of skepticism. Without being Luddites,* soldiers must recognize that technology alone cannot guarantee fighting power; indeed in some respects the pell-mell pursuit of technology actually can upset the sensitive balance of human factors that invests a force with genuine qualitative superiority in combat. As Martin Van Creveld has pointed out, modern wars repeatedly affirm the critical importance of fighting power, not technology, in providing the margin of victory.[26] The US Army cannot afford to lose sight of that truth.

A final lesson concerns the neglected virtues of consistency and follow-through. The skittishness that has haunted the Army since the 1950s, with structural and doctrinal changes tripping over one another, has eroded the sophistication with which soldiers formerly viewed their profession. As changes in the way the Army plans to fight become routine, the opportunity for mastering the essentials of the military art and even the incentive to do so decline. Frustration and cynicism result, reminiscent of the old Roman warrior whose saying too often is posted in modern orderly rooms as follows:

> We trained hard, but it seemed that every time we were beginning to form up into teams, we would be

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*Bands of workingmen in the industrial centers of England who rioted between 1811 and 1816. The uprising began in Nottinghamshire, where groups of textile workers, in the name of a mythical figure called *Ned Ludd* or *King Ludd*, destroyed knitting machines, to which they attributed the prevailing unemployment and low wages. No political aim was involved in the movement, which did not show any cohesion. The movement was suppressed harshly by the government

> reorganized. I was to learn later in life that we tend to meet any new situation by reorganizing, and a wonderful method it can be for creating the illusion of progress while only producing confusion, inefficiency, and demoralization.

Once it decides how to fight, the Army then must provide a stable and predictable environment in which its soldiers can develop the difficult skills that war will call on them to employ. Anything less is a waste of time and potentially a waste of lives.

If we find fault with army policies and decisions dating from the 1950s, we should remind ourselves of the uncommonly difficult problems facing the Service at that time. Such shortcomings as hindsight may reveal never can diminish the stature of an extraordinary generation of battle-proven soldiers who confronted the challenges of the 1950s with integrity and imagination. To their eyes, the future was as difficult to discern as it is to our eyes today. As we struggle to understand the military problems of our own time we would be wise to learn from their experience during the 1950s. At the same time, in undertaking to address those problems, we will serve the Army well if we can muster the courage and determination that so exemplified that earlier generation of military leaders.

Endnotes

Chapter 1

1. Maxwell D. Taylor, *The Uncertain Trumpet* (New York, 1959), p. 108. The term Babylonian captivity (or exile) is commonly applied, in the history of Israel, to the period from the fall of Jerusalem (586 B.C.), when the Hebrews were deported to Babylonia from Judea, to the reconstruction in Palestine of a new Jewish state (after 538 B.C.); traditionally, the exile lasted about 70 years. The Babylonian King Nebuchadnezzar adopted the Assyrian policy of deporting conquered peoples to reduce local nationalism. In 538 B.C. King Cyrus permitted the Jews to return to their homeland. Various aspects of the Exile and the Restoration are described in the Old Testament Books of Jeremiah, Ezekial, Daniel, Ezra, Nehemiah, II Kings, and II Chronicles. (The term also refers to the exile of the popes at Avignon from 1309 to 1377.)

2. *The New York Times*, 13 January 1954.

3. These and subsequent quotations are from *NSC 162/2*, "Basic National Security Policy," 30 October 1953, Record Group 273 (Records of the National Security Council), National Archives; hereafter cited as *RG273*, NA.

4. Russell F. Weigley, *The American Way of War* (New York, 1973), pp. 399–400.

5. *Annual Report of the Secretary of Defense* (July 1, 1959, to June 30, 1960) (Washington, DC, 1961), p. 34.

6. Robert H. Ferrell, ed. *The Diary of James C. Hagerty* (Bloomington, IN, 1983), p. 182.

7. "Recorded Summary of Address to The American People on The National Security and its Costs," 19 May 1953, *Public Papers of the President: Dwight D. Eisenhower (1953)* (Washington, DC, 1960), p. 318.

Chapter 2

1. *Historical Resume, Division Force Structure, Active and Reserve, 1935–1963*, undated, File 2-3.7/AC.A, Box 68, Office of The Chief of Military History Manuscripts, Record Group 319 (Records of the Army Staff), National Archives; hereafter cited as *OCMH Manuscripts, RG319*, NA.

2. *Annual Report of the Secretary of Defense* (July, 1959, to June 30, 1960).

3. *Historical Summary of Army Manpower and Personnel Management System*," 12 February 1965, File 2.37/AC.H, Box 69, *OCMH Manuscripts, RG319*, NA, p. 9 and chart 3.

4. Colonel Kenneth G. Wickham, "What the Cordiner Report Proposes," *Army* 7 (July 1957), p. 21. Between 1954 and 1956, 132,000 officers in the grades lieutenant to lieutenant colonel quit the Army.

5. Major General Gerald J. Higgins to General Matthew D. Ridgway, 8 June 1955, Box 26, The Papers of Matthew B. Ridgway, US Army Military History Institute, Carlisle Barracks, PA; hereafter cited as *Ridgway Papers*.

6. Major Multissimus, "The Wearing of the Army Green," *Army* 7 (May 1957), p. 27.

7. Major Forward, "Curtains for the Army," *The Army Combat Forces Journal* 6 (August 1955), p. 52.

8. "A Program for the Army," *The Army Combat Forces Journal* 6 (September 1955), p. 19.

9. Major John H. Cushman, "What is the Army's Story," *The Army Combat Forces Journal* 5 (October 1955), p. 49.

10. Lyman L. Lemnitzer, "This is a Significant Beginning," *The Army Combat Forces Journal* 6 (November 1955), p. 62.

11. Walbur M. Brucker, "A Vital Element of Our National Strength," *Military Review* 36 (July 1956) p. 5.

12. Remarks by Lieutenant Colonel William D. Wise, US Senate Subcommittee of the Committee on Appropriations, *Department of Defense Appropriation for 1955*, 83d Congress, 2d Session, 21 May 1954, p. 363.

13. Master Sergeant Stuart Queen, "The Big Picture," *Army Information Digest* 10 (February 1955) p. 34.

14. The Army's opposition to *NSC 5410* is recounted in Assistant Chief of Staff, G3, *Summary of Major Events and Problems, Fiscal Year 1954*, File 20-2.4/AA 1954, Box 751, *RG 319*, NA.

15. "Memorandum of Discussion at the 190th Meeting of the National Security Council," 25 March 1954, *Foreign Relations of the United States, 1952–1954*, Vol. II: National Security Affairs, Part 1 (Washington, 1984), pp. 639-41; hereafter cited as *FRUS, 1952–54*.

16. Ferrell, ed. *The Diary of James Hagerty*, p. 182. The quotation is from Hagerty's diary entry for 1 February 1955.

17. Chief of Staff, US Army to JCS, comment on draft *JCS Estimate of the Military Posture throughout the Free World, Fy 1956 through Fy 1959* (JCS 2101/131), undated [June 1954] CCS 381 US (1-31-50), sec 37, Box 32, JCS Geographic File 1954–1956, Record Group 218 (Records of the Joint Chiefs of Staff), National Archives; hereafter cited as *RG 218*, NA.

18. *Brief of Plan of Action for the Joint Strategic Capabilities Plan*, 23 November 1955, JSPC 877/299, CCS 381 (11-29-49), Section 27, *RG 218*, NA. Emphasis added.

19. "Memorandum by the President to the Secretary of State," 8 September 1953, *FRUS, 1952–1954*, p. 461. Emphasis in the original.

20. Interview with General Lyman L. Lemnitzer, 8 February 1985, The Pentagon. General Lemnitzer was Deputy Chief of Staff for Plans and Research during the period 1953 to 1955.

21. *Conversations between General Barksdale Hamlett and Colonel Jack Ridgway and Lieutenant Colonel Paul Walter*, Senior Officer Debriefing Program, US Army Military History Institute, Carlisle Barracks, PA (1976), Section 4, p. 66.

22. Ridgway to Secretary of the Army, Subj: National Security Council, 30 April 1954, Box 30, *Ridgway Papers*.

23. Ridgway to Secretary of the Army, Subj: Final Report, 9 June 1955, Box 30, *Ridgway Papers*.

24. Colonel Andrew J. Goodpaster, "Memorandum for Record: Conference of Joint Chiefs of Staff with the President," 10 February 1956, Box 4, White House Office Files (Office of the Staff Secretary, DOD Subseries), Dwight D. Eisenhower: Papers as President of the United States, 1953–1961, Eisenhower Library, Abilene, KS; hereafter cited as *Eisenhower Papers*. Emphasis in the original.

25. Ridgway to the Special Assistant to the President for National Security Affairs, Subj: Review of Basic National Security Policy, 22 November 1954, Box 30, *Ridgway Papers*. Emphasis in the original. This memorandum, revised by Ridgway in his own hand, became the basis of his presentation to the NSC.

26. "Memorandum of Discussion at the 227th Meeting of the National Security Council," 3 December 1954, FRUS, 1952–1954, pp. 804–06.

27. Goodpaster, "Memorandum of Conference with the President," 22 December 1954, Box 3, Ann Whitman File (Ann Whitman Diary), *Eisenhower Papers*.

28. *The New York Times*, 4 January 1955.

29. FM 100-5, *Field Service Regulations: Operations* (September 1954), p. 5.

30. Colonel Shillelagh, "... trouble with cavalry is ...," *The Army Combat Forces Journal* 5 (January 1955), p. 35.

31. "Mission for the Army: The Winning of World War III," *The Army Combat Forces Journal* 5 (February 1955), p. 16. The anonymous authors of this article are described as "a number of soldiers whose interest in their profession goes far beyond their daily duty."

32. Associated Press ticker, 28 February [1955], Box 3, White House Office Files (Office of the Staff Secretary, Alphabetical Subseries), *Eisenhower Papers*.

33. Ridgway, *Soldier: The Memoirs of Matthew B. Ridgway* (New York, 1956), p. 317.

34. Ridgway's letter to Wilson, dated 27 June 1955, is reprinted in *Soldier*, pp. 323–332. Emphasis in the original.

35. James L. Gavin, "We Can Solve Our Technical Difficulties," *The Army Combat Forces Journal* 6 (November 1955), p. 64.

36. Associated Press ticker of Gavin's testimony, 28 June 1956, JCS 471.6 (Guided Missiles—1956), Box 56, Chairman's Files: Admiral Radford, 1953–1957, RG 218, NA. Lewis L. Strauss to Admiral Arthur Radford, 28 June 1956. Alfred Gruenther to Radford, 2 July 1956.

37. Taylor, *Statement to Senate Armed Services Committee*, 20 February 1956, JCS 111 (1956—Budget (1958)), Box 28, Chairman's File: Admiral Radford, 1953–1957, *RG 218*, NA.

38. Rear Admiral Truman H. Hedding to Radford, *Military Strategy and Posture*, 1 February 1956, JCS 381 (Military Strategy and Posture), Box 47, Chairman's File: Admiral Radford, 1953–1957, *RG 218*, NA.

39. Radford to Joint Chiefs, *Strategic Concepts and the Use of US Military Forces*, 28 March 1956.

40. *The New York Times*, 19 May 1956.

41. Lieutenant General Clyde D. Eddleman to Hedding, *The CNO Draft Flimsy re the JSOP Strategic Concept*, undated [June 1956], JCS 381 (Military and Strategic Posture, June—December), Box 47, Chairman's File: Admiral Radford, 1953–1957, *RG 218*, NA.

42. Radford to Wilson, *Formulation of Joint Strategic Objectives Plan (JSOP)*, 25 April 1957, JCS 381 (Military Strategy and Posture, June—December), Box 47, Chairman's File: Admiral Radford, 1953–1957, *RG 218*, NA.

43. Gavin's book was *War and Peace in the Space Age* (New York, 1958). Taylor's was *Uncertain Trumpet*.

Chapter 3

1. Taylor, remarks at The Army War College, 22 August 1955, Box 5, The Papers of Maxwell D. Taylor, National

Defense University, Washington, DC; hereafter cited as *Taylor Papers*. Ridgway was equally adamant in opposing a civil defense mission for the Army. See his *Final Report* to Secretary Brucker, 9 June 1955. Yet two years later, Eisenhower was still expressing "consternation at the reluctance of the Army to accept that as a role." The President was naively optimistic in thinking that the Army leadership would ever come around to his way of thinking on this issue. John S.D. Eisenhower, *Memorandum of Conversation with the President*, 20 August 1957, Box 1, White House Office Files (Office of the Staff Secretary, DoD Subseries), *Eisenhower Papers*.

2. *Conversations Between Lieutenant General Paul W. Caraway and Colonel H. Ray*, Senior Officers Debriefing Program (1971), Sec. 8, p. 58.

3. Ridgway, *The Soldier and National Policy*, remarks at a meeting of the Council on Foreign Relations, 14 February 1955, vol. 21, Records of Meetings, Archives of the Council on Foreign Relations, New York.

4. Taylor, *The Army—An Appeal to the Record*, speech to the Al Smith Memorial Dinner, New York, 20 October 1955, Box 5, *Taylor Papers*.

5. Taylor, *An Army Travelogue*, speech to the Commonwealth Club of California, San Francisco, 31 October 1955, Box 5, *Taylor Papers*.

6. Taylor, remarks to Army War College, Carlisle Barracks, PA, 22 August 1955, Box 9, *Taylor Papers*.

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8. Gavin, War and Peace in the Space Age, p. 143.

9. Colonel George A. Lincoln and Lieutenant Colonel Amos A. Jordan, Jr., "Technology and the Changing

Nature of General War," *Military Review* 37 (May 1957), p. 3.

10. Taylor, *Address to the Graduating Class, Command and General Staff College*, Fort Leavenworth, KS, 18 June 1957, Box, 6, *Taylor Papers*.

11. Lieutenant Colonel William R. Kintner to Henry Kissinger, 3 December 1955, vol. 61, Records of Groups, Archives of the Council on Foreign Relations. Kintner in retirement would become ambassador to Thailand and president of the Foreign Policy Research Institute. In 1955, he participated with Kissinger in the Council on Foreign Relations' study group on *Nuclear Weapons and Foreign Policy*. Generals Gavin, Lemnitzer, and Andrew O'Meara were other Army participants. The conclusions of the study group formed the basis for Kissinger's subsequent book *Nuclear Weapons and Foreign Policy* (New York, 1957).

12. Colonel George C. Reinhardt, *American Strategy in the Atomic Age*, (Norman, OK, 1955), p. 58. An earlier and perhaps more influential statement of this viewpoint can be found in the 1952 report of Project Vista on *A Study of Ground and Air Tactical Warfare with Special Reference to the Defense of Western Europe*. That study concluded that the "tactical employment of atomic weapons against Soviet ground force targets may give the NATO armies the necessary margin of advantage." It recommended accelerated efforts to provide the Army with the proper mix of such weapons. Record Group 407 (Records of The Adjutant General's Files), National Archives.

13. Brigadier General Carl F. Fitzsche, "Tomorrow's Infantry Today," *The Army Combat Forces Journal* 5 (April 1955), p. 20.

14. Major Roderick A. Stamey, Jr., "Fire Power and Speed Will Beat the Odds," *The Army Combat Forces Journal* 6 (November 1955), p. 32.

15. "The Case for Tactical Nuclear Weapons," *Army* 6 (March 1956), p. 24.

16. Lieutenant Colonel George B. Pickett, "Squeeze 'em an' Blast 'em," *Military Review* 35 (September 1955), p. 57. Pickett, "What Profiteth a Nation," *Military Review* 34 (July 1954), p. 5.

17. Lieutenant Colonel Clarence C. DeReus, "Through the Atomic Looking Glass," *Military Review* 35 (June 1955), p. 11.

18. General Willard G. Wyman, "The United States Army: Its Doctrine and Influence on U.S. Military Strategy," *Military Review* 37 (March 1958), p. 10.

19. Pickett, "What Profiteth a Nation?" p. 5.

20. Reinhardt, *American Strategy in the Atomic Age*, p. 118.

21. Reinhardt and Kintner, *Atomic Weapons in Land Combat* (Harrisburg, PA, 1953), p. 55.

22. Colonel Alexander D. Surles, Jr., "Decision in the Face of Defeat," *Military Review* 34 (March 1955), p. 34.

23. T.R. Fehrenbach, *This Kind of War* (New York, 1963), pp. 97–107 vividly describes the condition and fate of *Task Force Smith*.

24. Conversations Between General Paul L. Freeman, USA (Ret.) and Colonel James N. Ellis, Senior Officer Oral History Program (1974). See also Ridgway, *Soldier*, pp. 286–7.

25. General Willistom B. Palmer, "We Won't Have the Time," *The Army Combat Forces Journal* 6 (October 1955), p. 37.

26. The Army's perspicacity did not extend to a recognition of "revolutionary warfare" as a peculiar type that the Army would confront. American officers did not draw any profound conclusions about the war in Indochina.

Little discussion of the French failure there appeared in American military journals. That which did appear was seldom helpful. Even Bernard B. Fall, an analyst of insight and experience, was telling American readers in late 1953 that the French experience could provide only "a few general lessons." Fall said that the Indochina war "cannot be considered a modern war since one of the opponents is entirely devoid of armor and air power." Fall, "Indochina: The Seven Year Dilemma," *Military Review* 33 (October 1953), p. 35.

27. Gavin, "Technical Difficulties," p. 64. Emphasis in the original. See also Taylor, letter to selected retired general officers, 29 November 1955, Box 6, *Taylor Papers*.

28. William F. Train, "The Atomic Challenge," *Military Review* 36 (November 1956), p. 5. Emphasis in the original.

29. Taylor, *The Army, Today and Tomorrow*, speech to AUSA annual convention, Washington, DC, 25 October 1956, Box 5, *Taylor Papers*.

30. Lemnitzer, *The Role of the Army in Modern War*, Kermit Roosevelt Lecture, Sandhurst, England, 5 May 1953, Box 75, the Papers of Lyman L. Lemnitzer, National Defense University, Washington, DC; hereafter cited as *Lemnitzer Papers*.

31. Lieutenant Colonel Lewis C. Taynton, "Impact of Atomic Weapons on Defense," *Military Review* 36 (September 1956), p. 57.

32. Colonel Frank J. Sackton, "The Changing Nature of War," *Military Review* 34 (November 1954), p. 60.

33. To maintain the distinction between the utility of tactical nuclear weapons and the futility of strategic weapons, the Army argued against the likelihood of escalation. The use of smaller tactical weapons would

not inevitably lead to the employment of larger ones, as the Service saw it. But such reasoning use owed more to faith than to logic. As the Commanding General of CONARC (Continental Army Command) remarked in 1958, the Army assumed restraint on the part of the Soviets since they "had no more intention of bequeathing the world to the oyster-boring sea worm than we have." Wyman, "The United States Army: Its Doctrine and Influence on US Military Strategy," *Military Review* 37 (March 1958), p. 12.

34. Wyman, "Highlights of Army Doctrine," *Armor* 67 (March-April 1958), p. 14. For a detailed view of how the Army viewed Soviet strategy, see Colonel Raymond L. Shoemaker et al, "Readiness for the Little War: Optimum Integrated Strategy," *Military Review* 37 (April 1957), pp. 16–22.

35. For a clear summation of this viewpoint, see DA Pamphlet 21–70, *The Role of the Army*, 29 June 1955.

36. Wyman, "Invitation to Think," *Infantry School Quarterly* 46 (October 1956), p. 10.

37. Wyman, "Highlights of Army Doctrine," p. 16.

38. Sackton, "Atomic Weapons for the Battalion Commander," *The Army Combat Forces Journal* 5 (December 1954), p. 44.

39. Captain Everett C. Royal, "The Team of Mobile Warfare: Armor and Airborne," *Armor* 64 (March-April 1955), p. 4. The Pentomic division was one of the few Army initiatives of the 1950s to attract President Eisenhower's enthusiastic support. The President believed that reducing the size of the division would allow the Army to accept further reductions in its overall personnel strength while maintaining the same nominal force structure. Such was never the Army's intent; indeed, the Army continued to push for more people and more divisions. Apparent agreement on organizational

reform further illustrates the depth of misunderstanding between the President and his former Service. See Goodpaster, *Memorandum of Conference with the President*, 11 October 1956, Box 19, Ann Whitman File (Eisenhower Diary), *Eisenhower Papers.*

40. Theodore H. White, "An Interview with General Gavin. . . . Tomorrow's Battlefield," *The Army Combat Forces Journal* 5 (March 1955), p. 22.

41. Colonel Edward L. Rowny, "Ground Tactics in an Atomic War," *The Army Combat Forces Journal* 5 (August 1954), p. 19.

42. Gavin, "Cavalry, and I Don't Mean Horses," *Armor* 63 (May-June 1954), pp. 18–22.

43. Taylor, "Remarks before the House Armed Services Committee," 29 January 1957, JCS 111 (1958 Budget), Box 28, Chairman's Files: Admiral Radford 1953–1957, *RG 218*, NA.

44. Taylor, "The Changing Army," *The Army Combat Forces Journal*, 6 (October 1955), p. 10.

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1. John B. Maderis, *Countdown for Decision* (New York, 1960), p. 65. See also Michael H. Armacost, *The Politics of Weapons Innovation: The Thor-Jupiter Controversy* (New York 1969), p. 49.

2. Conversations Between Lieutenant General Paul W. Caraway and Colonel H. Ray, 8, p. 47. Caraway was a brigadier general in charge of Army research and development in the period just after Korea.

3. Lemnitzer to Lieutenant General Charles L. Bolte, 22 January 1953, Box 1, *Lemnitzer Papers.*

4. See, for example, "Outstanding Army Rocket Record," *Missiles and Rockets* 1 (November 1956), p. 33.

5. *NSC 159*, "Report of the Continental Defense Committee," 22 July 1954, *RG 273*, NA.

6. *The New York Times*, 28 March 1948.

7. Unless otherwise noted, technical information on weapons comes from various editions of *Jane's All the World's Aircraft* or *Jane's Weapons Systems*.

8. *The New York Times*, 21 May 1956.

9. "The Army's Bird in Hand," *Air Force Magazine* 39 (June 1956), p. 42.

10.. *Ibid.*, p. 44.

11. *The New York Times*, 27 November 1956.

12. Army Regulation (AR) 525–30, *Army Missiles*, 28 August 1956.

13. The Key West Agreement is printed in *The New York Times*, 28 March 1948.

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16. *The New York Times*, 27 November 1956.

17. Douglas Kinnard, *President Eisenhower and Strategy Management* (Lexington, KY, 1977), p. 74.

18. US Congress, House of Representatives, Committee on Government Operations, 86th Congress, 1st Session, *Organization and Management of Missile Programs*, 2 March 1959, p. 298.

19. Taylor, *A Program For Improving Limited War Capabilities*, remarks at Army War College, Carlisle Barracks, PA, 12 June 1958, Box 4, *Taylor Papers*.

20. *Preliminary Concepts for Battle Group Atomic Delivery System*, 9 April 1958, Box 3, White House Office Files (Office of the Staff Secretary, Alphabetical Subseries), *Eisenhower Papers*.

21. Lemnitzer to Lieutenant General John E. Dahlquist, 4 February 1954, Box 2, *Lemnitzer Papers*. Emphasis added.

22. Taylor, remarks at the Army War College, Carlisle Barracks, PA, 20 August 1956, Box 9, *Taylor Papers*.

23. Taylor, *Development of US Military Strategy*, speech at the Army War College, Carlisle Barracks, PA, 26 January 1959, Box 4, *Taylor Papers*.

24. US Congress, Senate, Committee on Armed Services, 85th Congress, 1st Session, *Inquiry into Satellite and Missile Programs*, 13 December 1957, p. 490.

25. *Semiannual Report of the Secretary of the Army January 1-June 30, 1957*, (Washington, DC, 1958), p. 104; hereafter cited as *Semiannual Report*.

26. *Semiannual Report FY 1956*, (Washington, DC, 1957), p. 83.

27. Lieutenant Colonel Anthony L. Wermuth, "Modernization-Minus," *Army* 9 (October 1958), p. 31.

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1. Meeting of Subcommittee III, study group on *Nuclear Weapons and Foreign Policy*, 15 February 1956, vol. 61, Records of Groups, Archives of the Council on Foreign Relations.

2. White, *An Interview with General Gavin*, p. 22.

3. *SemiAnnual Report of the Secretary of the Army, FY 1956*, p. 89.

4. Ridgway, Taylor, and Gavin each commanded airborne divisions during World War II. Ridgway also commanded XVIII (Airborne) Corps.

5. *Semiannual Report, FY 1958*, p. 106.

6. *Semiannual Report, FY 1956*, p. 87.

7. Reinhart and Kintner, *Atomic Weapons in Land Combat*, pp. 35–36.

8. Colonel Theodore C. Mataxis and Lieutenant Colonel Seymour L. Goldberg, *Nuclear Tactics* (Harrisburg, PA, 1958), pp. 164,211.

9. *Ibid.*, pp. 169–70, 184.

10. Anthony Leveiro, "Task Force Razor Shaves Big Apple 2," *The Army Combat Forces Journal* 5 (June 1955), pp. 38–43. "The Breakthrough," *Armor* 64 (May-June 1955), pp. 8–13.

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12. Exercise Desert Rock VII and VIII, Camp Irwin, CA. *Infantry Troop Test, Exercise Desert Rock VII & VIII*, 11 December 1957. Copy obtained from NTIS.

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15. Colonel Henry E. Kelly, "Dig That Atomic Foxhole," *Army* 6 (June 1956), pp. 38–39.

16. Wyman, "Let's Get Going on our New Combinations For Combat," *Army* 6 (July 1956), p. 40.

17. Colonel James E. Edwards, "Web Defense," *The Army Combat Forces Journal* 5 (June 1955), p. 37.

18. Major General Hamilton H. Howze, "Combat Tactics for Tomorrow's Army," *Army* 8 (October 1958), p. 30.

19. Edwards, "Web Defense," p. 32.

20. Howze, "Combat Tactics for Tomorrow's Army," p. 29.

21. Major General Joseph H. Harper and Colonel Joseph H. Stilwell, Jr., "The Final Decision is the Infantryman's," *The Army Combat Forces Journal*, 6 (September 1955), p. 44. Stilwell headed the Infantry School's Tactical Department. See also Lieutenant Colonel George B. Cullison, "The Integrated Battle Group," *Military Review* 36 (November 1956), p. 39.

22. Howze, "Combat Tactics for Tomorrow's Army," p. 28.

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25. *Report of the Defense Advisory Committee on Professional and Technical Compensation*, Volume I (Military Personnel), pp. 2, 4, 43, 78.

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28. Colonel Richard N. Whitney, "A Fighting Heart for the Army's New Look," *Military Review* 35 (April 1955), pp. 9–10.

29. "One Third of Army Will Be on the Move Each Year," *Army-Navy-Air Force Journal* 92 (2 October 1954), p. 122.

30. S.L.A. Marshall, "Gyroscope's End Provokes No Widespread Protest," *Army-Navy-Air Force Register and Defense Times* 80 (19 September 1959), p. 11.

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2. General Bruce Clarke, "The Word is Go," *Army* 10 (March 1960), p. 39.

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4. Marshall, "Arms in Wonderland," *Army* 7 (June 1957), p. 19.

5. Marshall, "The Place of Man in a Modern Army," *Army* 10 (April 1959), pp. 26, 30.

6. Lieutenant Colonel Arthur W. Milberg, "Atomic War Questions For Battle Commanders," *Army* 9 (January 1959), p. 28.

7. Arthur S. Collins, *Senior Officers Oral History Project*, Senior Officer Debriefing Program (1982), pp. 239–43.

8. Ernest F. Fisher, Jr. *Relationship of the ROAD Concept to Moral Considerations in Strategic Planning*, File 2-3.7/AC.C, Box 68, Office of the Chief of Military History Manuscripts, RG 319, NA.

9. *Conversation Between General Hamilton Howze and Lieutenant Colonel Robert Reed*, Senior Officer Debriefing Program (1972), pp. 6-7.

10. *Conversations Between General Donald V. Bennett and Lieutenant Colonel Smith and Lieutenant Colonel Hatcher*, Senior Officer Debriefing Program (1976), Section 5, pp. 10–11.

11. *Conversation Between General Paul L. Freeman, USA (Ret.) and Colonel James N. Ellis*, second interview, p. 30.

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THE PENTOMIC ERA

The US Army Between Korea and Vietnam

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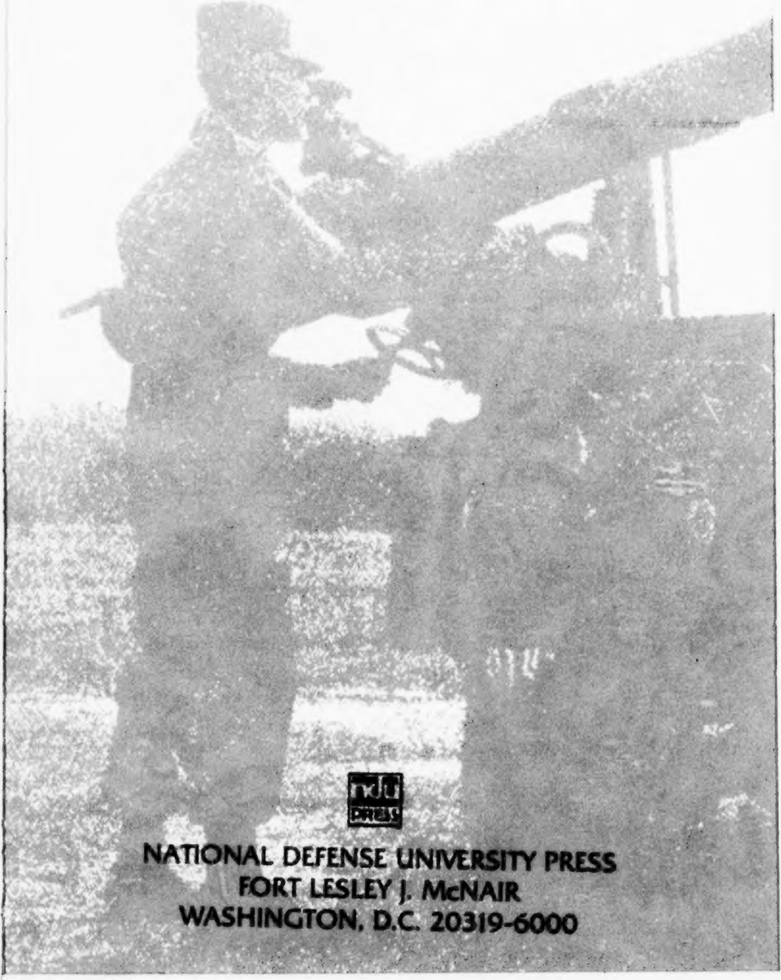

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